IBM

pfs: file

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pfs: file

by Software Publishing Corporation

First Edition (November 1982)

Use this publication only for the purpose of operating your IBM Personal Computer *pfs:*FILE application.

The following document contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples contain the names of individuals and companies. All of these names are fictitious, and any similarity to the names and addresses used by an actual business enterprise is purely coincidental.

Program by D. D. Roberts
Manual by Tracy Deliman

Preface

This manual explains how to use the *pfs:*FILE program to help organize and manage the information you use every day. If you are not familiar with the general operation of your IBM Personal Computer, read through the IBM Guide to Operations before beginning.

To use FILE, you need an IBM Personal Computer with at least 64KB of memory, one diskette drive, IBM's Disk Operating System (DOS), the FILE program diskette, and a supply of blank, formatted diskettes. A second diskette drive and a printer are necessary to take full advantage of FILE's capabilities.

This manual contains nine chapters and four appendixes. The chapters give you detailed, step-by-step instructions on how to use FILE. The appendixes include information on error messages and recovery, useful DOS commands, a method to determine how many forms will fit in a file, and instructions for setting up different printers. In addition, there is a Quick Reference Card that summarizes the most important and most used information.

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Introduction

This Introduction consists of two parts:

- Part I.   Getting Ready to Use *pfs:*FILE

- Part II.   The *pfs:*FILE Program

The first part explains what you need to do before you can begin to use the *pfs:*FILE program. This part includes instructions for preparing the program diskette for daily use, and making a spare or "backup" copy of it. It is important that you complete these instructions before using the program diskette for the first time.

The second part gives you an overview of the *pfs:*FILE program and how it works. You will also learn about special keys on your IBM Personal Computer that will make your work easier. It is a good idea to read this part over before beginning to use FILE.

Part I.   Getting Ready to Use FILE

What You Need to Use FILE

IBM Monochrome Display

System Unit
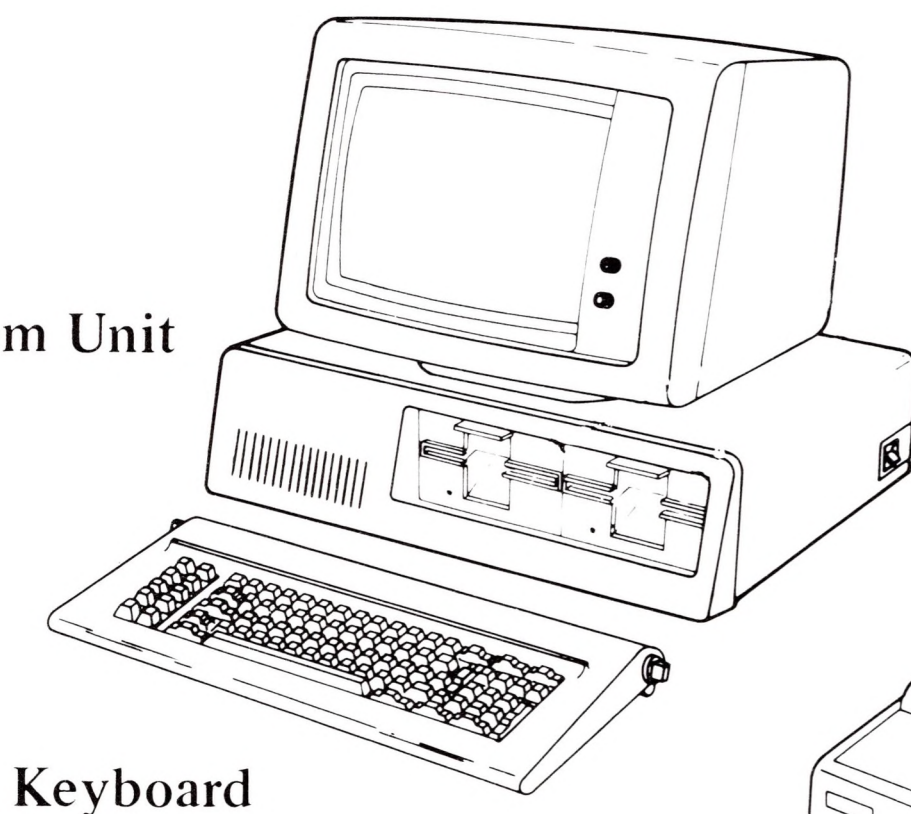
On-Off Switch

Keyboard
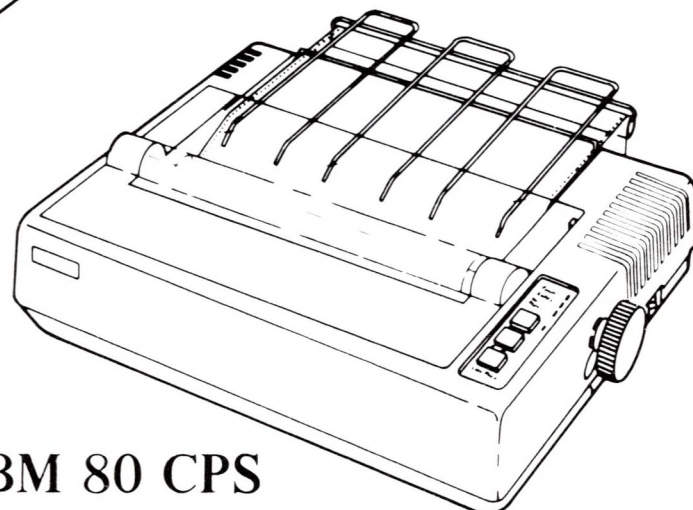
IBM 80 CPS Matrix Printer

To use FILE, you need:

- an IBM Personal Computer with at least 64KB of memory

- one or two diskette drives, preferably two

- an IBM Monochrome Display or other 80-column video monitor

- one of the following printers (optional):

    - the IBM 80 CPS Matrix Printer or another parallel printer plugged into the IBM Monochrome Display and Parallel Printer Adapter

    - the IBM 80 CPS Matrix Printer or another parallel printer plugged into an IBM Parallel Printer Adapter

    - a serial printer connected with the IBM Asynchronous Communications Adapter

- the *pfs:*FILE program diskette

- the IBM Disk Operating System (DOS)

- a supply of blank, formatted diskettes ("Formatting Diskettes" in Appendix C or your DOS manual has instructions on formatting diskettes)

Making the FILE Program Diskette Self-Loading

Before you begin using FILE, you should modify the program diskette so that it is self-loading, i.e., so that you can load FILE without first loading DOS.

To modify the diskette, follow these instructions:

For a two-drive system:

1. First, remove the write-protect tab from the FILE program diskette and save it for later use. Then insert the DOS diskette into drive A and turn on your IBM Personal Computer.

2. Enter the date (and time if requested) when DOS asks you to do so.

3. When the DOS prompt (A>) appears, place the FILE diskette in drive A and the DOS diskette in drive B. Type:

   INSTALL

   and press the Enter ⏎ key.

4. When the computer displays the message:

   PAUSE — Place your DOS diskette in drive "B" and leave the PFS series diskette in drive "A" Strike a key when ready . . .

   press any key. You will see a series of DOS commands and the in-use lights of the diskette drives will come on alternately for the next few moments as information is copied from the DOS diskette to the FILE diskette.

5. When the DOS Prompt (A>) reappears, go to the next section, "Making a Backup Copy of the FILE Program Diskette," to make a one-time backup copy of your FILE Program diskette.

For a one-drive system:

1. First, remove the write-protect tab from the FILE program diskette and save it for later use. Then insert the DOS diskette into the drive and turn on your IBM Personal Computer.

2. Enter the date (and time if requested) when DOS asks you to do so.

3. When the DOS prompt (A >) appears, place the FILE diskette in the drive, type:

    INSTALL

    and press the Enter ⏎ key.

4. The computer displays the message:

    PAUSE — Place your DOS diskette in drive "B" and leave the PFS series diskette in drive "A" Strike a key when ready . . .

    Now, with the FILE diskette still in the drive, press any key to continue.

    Note: In the instructions that follow, remember to insert your DOS diskette in the drive when the computer asks for the diskette for drive B. Insert the FILE diskette in the drive when the computer asks for the diskette for drive A.

5. When the computer displays the message:

    Insert diskette for drive B and strike any key when ready

    insert the DOS diskette in the drive and press a key.

6. When the computer displays the message:

   **Insert diskette for drive A
   and strike any key when ready**

   insert the FILE diskette in the drive and press a key.

7. Continue inserting the FILE diskette when the computer asks for a diskette for drive A, and the DOS diskette when the computer asks for a diskette for drive B, until the DOS prompt (A >) reappears.

8. Now go to the next section, "Making a Backup Copy of the FILE Program Diskette," to make a one-time backup copy of your FILE program diskette.

Making a Backup Copy of the FILE Program Diskette

Before you use the FILE program, you should make a backup copy of the program diskette. You can only make a copy of the program diskette once, so follow the instructions below very carefully. Also, if you haven't followed the instructions in the previous section, "Making the FILE Program Diskette Self-Loading," do so now before attempting to back up your FILE diskette.

For a two-drive system:

1. Place the FILE diskette (write-protect tab removed) in drive A, type:

   BACKUP

   and press the Enter ⏎ key. Several DOS commands will be displayed, then the following screen will appear:
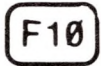
   PFS SERIES PROGRAM BACKUP UTILITY

   Have your PFS series program diskette and a blank,
   DOUBLE DENSITY, HIGH QUALITY diskette ready.
   Remove the write-protect tab from each diskette.
   Place the blank diskette in drive B and press F10 when ready.
   If you are not ready for this operation, turn the machine off.

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2. Place a high quality, blank diskette in drive B (leave the FILE diskette in drive A) and press the F10 key. The diskette is being initialized while the "Working. ." message is on the screen. When the "Copy . ." message is on the screen, the backup procedure is under way.

3. When the DOS prompt (A >) reappears with a cursor, remove both diskettes and place a write-protect tab on each of them. Label the backup copy with a felt-tipped pen. Work with the copy and store the original FILE diskette in a safe place. You are now ready to begin using the FILE program.

For a one-drive system:

1. Place the FILE diskette (write-protect tab removed) in the drive, type:

   BACKUP

   and press the Enter ⏎ key. After several DOS commands are displayed the following screen will appear:

PFS SERIES PROGRAM BACKUP UTILITY

Have your PFS series program diskette and a blank,
DOUBLE DENSITY, HIGH QUALITY diskette ready.
Remove the write-protect tab from each diskette.
Place the **BLANK** diskette in drive A and press F10 when ready.
If you are not ready for this operation, turn the machine off.

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---

2. Place a high quality, blank diskette in the drive and press the F10 key. The diskette is being initialized while the "Working . ." message is on the screen.

3. When requested, place your FILE diskette in the drive and press F10 .

4. When requested, replace the FILE diskette with the blank diskette again, and press F10 .

5. When the computer asks you to insert a diskette for drive A, insert the FILE diskette.

6. When the computer asks you to insert a diskette for drive B, insert the blank diskette.

7. Continue switching the two diskettes when requested. Be prepared to switch the diskettes 20-25 times. A series of DOS command lines will appear as you go through this process. When the DOS prompt (A >) reappears, remove the last diskette from the drive, and place a write-protect tab on both diskettes. Label the backup copy with a felt-tipped pen. Work with the copy and store the original FILE diskette in a safe place. You are now ready to begin using the FILE program.

Starting FILE When the Computer is Off

To load the FILE program into your IBM Personal Computer, follow these steps:

1. Insert the FILE program diskette in drive A and turn on your IBM Personal Computer.

2. Enter the date and time when DOS asks you to do so.

3. At this point, you will hear the diskette drive loading FILE, then the FILE Main Menu will appear on the screen. Remove the program diskette from the drive and put it back in its envelope. You won't need it again until you want to exit from FILE.

Starting FILE When the Computer is On

When you have been using DOS or running other programs, you can switch easily to FILE:

1. Make sure you have exited from your program. The last item on the screen should be the DOS prompt:

   A>

2. Remove any diskettes from the drives and put FILE into drive A.

3. Type in the word FILE and press the Enter ⏎ key. The FILE program will load into the computer and the Main Menu will appear. You are now ready to begin using FILE. You can take the FILE diskette out and store it in its jacket.

Using FILE With a One-Drive System

While it is possible to use FILE with only one diskette drive, you will not be able to use the COPY function or the Change Design function on large files. FILE needs temporary work space on the diskette in the work drive in order to Change Design on files containing data or to sort files for printing. The work drive is initially drive B. For a one-drive system the work drive should be drive A. Use the SETUP program described in "Setting up a Serial Printer and the Work Drive" in Appendix D to change the work drive to drive A.

Also some examples in this manual ask you to put a blank formatted diskette in drive B. Instead, you should make sure that the diskette in the drive has free space at least equal to the size of the data file you are restructuring or sorting.

To make the most effective use of the program, you need to have two diskette drives. (To copy your *pfs:* file with one diskette drive, use the DOS COPY or DISKCOPY commands as described in your DOS manual or under "Copying a File" in Appendix C.)

Protecting Your *pfs*: Data Files

By the time you have created a *pfs:* file and entered the information in it, you have invested a good deal of your time. To avoid losing the data stored in that file (and the time you've spent entering it), follow these guidelines:

1. Never remove a data diskette or turn the IBM Personal Computer off unless the *pfs:***FILE** Main Menu is displayed on the screen. If you do, it may damage your file.

2. Use only high-quality diskettes.

3. Always keep at least one extra, or "backup copy" of each *pfs:* file. See our backup recommendations below.

4. Handle your diskettes carefully. Store away from heat, sunlight, and devices with strong magnetic fields (TVs, diskette drives, etc.)

5. Print a copy of your files from time to time. Chapter 5 has instructions for printing your files.

Recommended Backup Procedure

1. Back up your files on a regular basis. If you update them daily, then back up daily. If you update less often, then back up whenever you update.

2. Make two backup copies initially, and alternate the use of them. The first time you back up, use the first diskette; the next day, use the other diskette; and so on. This way, if a problem develops while making a backup, you will still have the data on the other backup diskette.

3. If you have two diskette drives, back up your files by using the *pfs:*FILE COPY function. If you have only one drive, use the DOS COPY program (see Appendix C, "Copying a File," or your DOS manual).

4. If you encounter problems with a file or get an I/O ERROR message, discard the diskette at once and use the backup diskette (make a copy of the backup diskette first). If the problem recurs with the backup diskette, ask your IBM Personal Computer dealer for help.

Part II.   The *pfs:*FILE Program

What is *pfs:*FILE?

*pfs:*FILE is a computer program that you can use to store and retrieve the information you deal with every day. It works with all kinds of information — about people, places, objects, ideas, events; and is useful in a wide range of applications such as business, professional environments, home, and education. FILE organizes and stores information efficiently, providing easy access to any information you want. Retrieval is fast and reliable, and is not limited by the order in which the information is stored.

*pfs:*FILE operates on the principle that information is kept, as the word itself implies, in forms. A form can have as much or little structure as you wish — you are the one who determines what it looks like. Using the computer keyboard and screen, you design the form you want, then save it in a file on a diskette.

Here are examples of the kinds of forms you can design:

Invoice

```
Invoice #:
Bill to:                        P.O. #:
Ship to:                        Telephone:


Order date:                     Terms:
Ship date:                      Ship via:
Product:
Quantity:                       Amount:
                                Tax:
                                Total due:


File: INVOICE              FORM 1              Page 1
F2-Print Form      F5-Date      F6-Time      F10-Continue
```

Customer List

```
Company:


Address:
City:            State:        Zip:


Buyer's name:


Last contact date:                Phone:
Purchases:


Comments:

File: CUSTLIST             FORM 1              Page 1
F2-Print Form      F5-Date      F6-Time      F10-Continue
```

Patient Records

```
 ┌──────────────────────────────────────────────────┐
 │                                                    │
 │  Name:              Account #:                     │
 │                                                    │
 │  Address:           State:      Zip:               │
 │  City:              Age:                            │
 │  Phone:                                            │
 │                                                    │
 │  Conditions:                                       │
 │                                                    │
 │  Treatment:                                        │
 │                                                    │
 │  Date:                                             │
 │  _____  │
 │  File: PATIENT          FORM 1            Page 1   │
 │  F2-Print Form     F5-Date    F6-Time  F10-Continue│
 │                                                    │
 └──────────────────────────────────────────────────┘
```

After you have designed the blank form, you can recall
it to the screen, fill it out, then store the filled-in form
back in the diskette file. You can enter data in any
order you like and FILE will find the information
when you need it. Diskette storage is very compact. A
standard (160 KB) diskette can hold up to 1100 simple
forms. The actual number depends on how many
pages there are in the form, how many items per page,
and how much data is entered in each item (see
Appendix B, "Diskette Storage Capacity").

filled in form

blank form

STAFF FILE

Employee #: 13029   Hired: 80/02/01

Name: Mike Cooper

STAFF FILE

Employee #: 16445   Hired: 80/08/12   ZIP 97208

Name: Jennifer Young

STAFF FILE

Employee #: 01623   Hired: 76/06/14   ZIP: 02109

Name: Anne Williams

STAFF FILE

Employee #:   Hired: ZIP: 94022

Name:

Address:

City: State: Zip:

Job Title:

Experience:
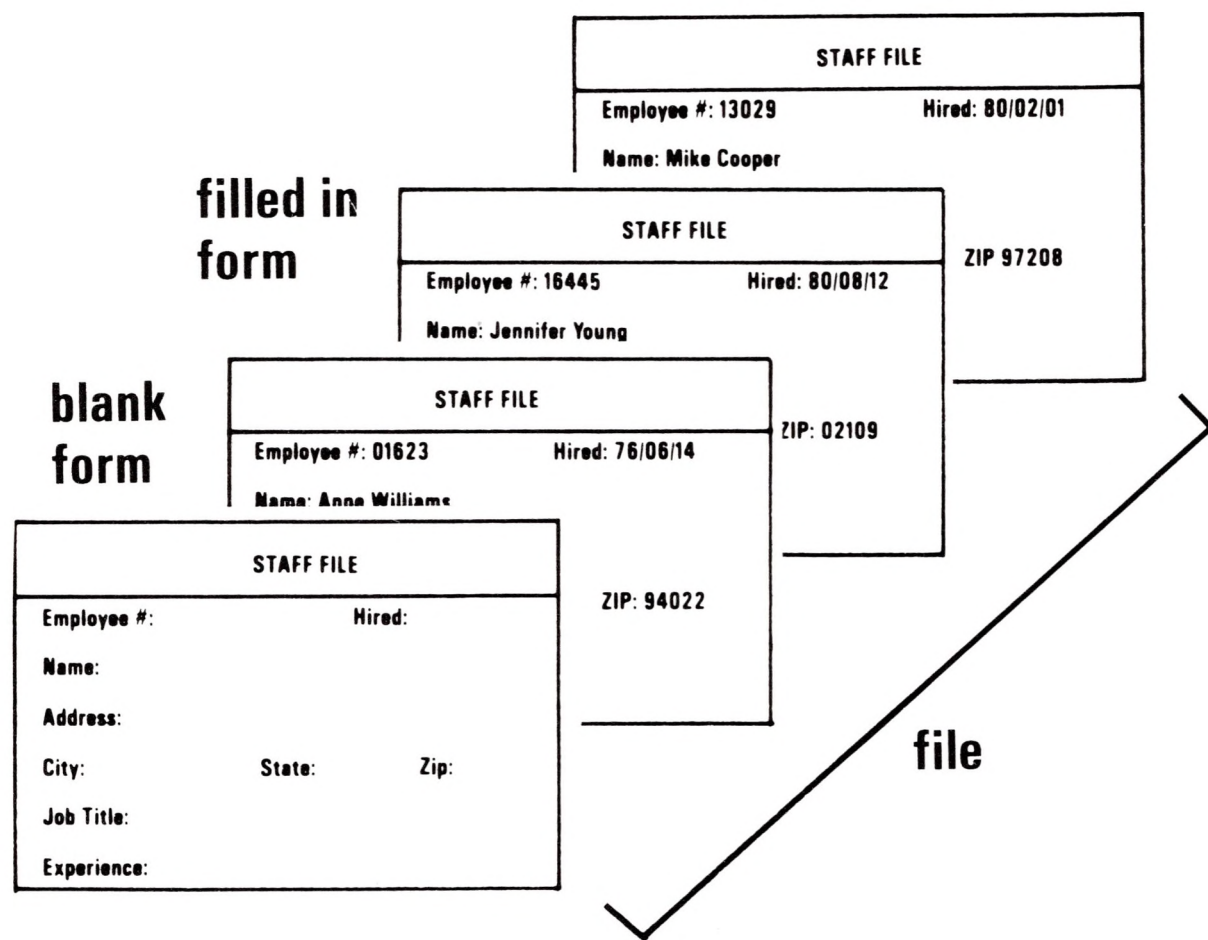
file

Once you store the information in the diskette file, you can retrieve it in a variety of different ways. Use the blank form to indicate what you want to find. To do this, you fill in the form with retrieve specifications. Suppose you have a *pfs:* file that lists phone messages for everyone in your company. You could ask for all items that exactly match a given set of characters:

I-17

"find all the phone messages for Jeff Stribling"

```
Date:                          Time:
To: Jeff Stribling


M:
Of:
Phone:


Message:

                               Operator:



_____

File: MESSAGE          RETRIEVE SPEC          Page 1
F5-Date             F6-Time            F10-Continue
```

or all items that contain a certain set of characters:

"find all customers that include components somewhere in the purchases"

```
Company:


Address:
City:                  State:      Zip:


Buyer's name:


Last contact date:                 Phone:
Purchases: ..components..


Comments:
_____

File: CUSTLIST         RETRIEVE SPEC          Page 1
F5-Date             F6-Time            F10-Continue
```

If the item is a number, the request can be for all items less than, greater than, or equal to a given number:

"find all patients over 65"

```
Name:              Account #:

Address:
City:              State:        Zip:
Phone:             Age:  > 65

Conditions:

Treatment:

Date:
_____
File: PATIENT          RETRIEVE SPEC          Page 1
F5-Date                F6-Time                F10-Continue
```

FILE allows you to enter a retrieve specification for every item in the form. Only those forms meeting all the specifications will be found. This feature gives you access to complex relationships between different items of information:

"find all patients over 65 who live in Palo Alto and suffer from arthritis"

```
Name:                        Account #:

Address:
City: Palo Alto              State:           Zip:
Phone:                       Age: > 65

Conditions: ..arthritis..

Treatment:

Date:
_____

File: PATIENT          RETRIEVE SPEC          Page 1
F5-Date                F6-Time                F10-Continue
```

You can display the requested forms on the screen for quick viewing (and updating, if you wish) or print them for a more permanent record. You can print the entire form or selected portions of it, formatted to your specifications (for example, you can generate mailing labels).

The *pfs:*FILE Main Menu

The FILE Main Menu lists the seven main functions provided by the FILE program:

PFS: FILE FUNCTION MENU

1	DESIGN FILE	5	PRINT
2	ADD	6	REMOVE
3	COPY	7	EXIT PFS:FILE
4	SEARCH/UPDATE		

SELECTION NUMBER:
FILE NAME:

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0410000000   F10-Continue

You will see the FILE Main Menu when you first load *pfs:*FILE and whenever you press the Escape (Esc) key. After loading FILE and before pressing any key, the copyright notices appear at the bottom of the screen. If your FILE program diskette is serialized, a serial number also appears at the bottom left of this screen.

You use this menu to select the function you want FILE to perform. The menu consists of a numbered list of the FILE functions, along with two items you need to fill in:

SELECTION NUMBER Enter the number that corresponds to the function you want to perform (1 selects DESIGN FILE, 5 selects PRINT, etc.)

FILE NAME   Enter the name of the *pfs:* file
                       you are going to use. (You
                       initially give the file a name
                       when you design it.) This can
                       be a simple file name, such as
                       STAFF, or it can include the
                       drive and filename, such as
                       B:STAFF. If no drive is
                       specified, FILE assumes the
                       file is in the default drive
                       (usually drive A).

The FILE Menu Options

To use FILE, you select the DESIGN FILE function first
(Chapter 1), then the ADD function (Chapter 2). With
these two functions, you store your information on
forms in a diskette file. You can also COPY forms to a
new file (Chapter 3): you can copy the blank form
only, the entire file, or selected forms from the file.
COPY can also be used to merge or split files. FILE
allows you to SEARCH for any form, and UPDATE it if
you wish (Chapter 4).

You can also sort forms to print them alphabetically,
format your information for printing, and PRINT any
form (Chapter 5). When a form is no longer needed,
you can REMOVE it from the file (Chapter 6). Once
you have created a file of data, you can CHANGE its
DESIGN as your needs change (Chapter 8). Finally,
when you've completed your work, you can EXIT
*pfs:*FILE (Chapter 7).

pfs: Data File Names

You can build *pfs:* files on any DOS-compatible
diskette drive that is connected to your IBM Personal
Computer. Typically, you will store each *pfs:* file on a
diskette of its own. You can put more than one file on
a diskette, but we recommend that you don't, since
files tend to get large over time and cannot be
continued on another diskette. Before using a diskette
for a *pfs:* file, you must format it with the DOS
FORMAT command (see Appendix C, ''Formatting
Diskettes'').

If you do put more than one file on a diskette, each file
must have a unique file name. You can have files on
different diskettes named the same, but it is less
confusing if you name each file differently no matter
what diskette it is stored on.

To the IBM computer, *pfs:* files look just like other
files. The conventions for naming *pfs:* files are the
same as for other IBM files. These conventions are
briefly summarized below. For a complete description
of file naming, see the IBM Personal Computer *Disk
Operating System* (DOS) manual.

A file name usually has two parts: the name of the
drive the file is on, and the name of the file. Separate
the two parts with a colon (:). The drive name comes
first, for example, A:STAFF. This refers to the file
named STAFF on the diskette in drive A.

If you use a file name on its own, without a preceding
drive name (for example, STAFF), FILE will assume the
file is on the diskette in the default drive (drive A
unless you have changed it). ''Specifying the Default
Drive'' in the IBM DOS manual describes the default
drive.

File names can be from one to eight characters long. You can use the letters A through Z, the number 0 through 9, and these special characters: # & @ ! % ' ( ) − { } __ . Here are some sample file names:

TARGET82   WINES79   PATIENTS

A file name can also have an optional extension of a period and one, two, or three more characters. If a file name has an extension, you must always use the extension with the name in referring to that file. Here are file names with extensions:

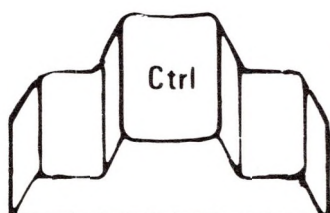TARGET82.JAN   WINES79.#12   PATIENTS. 65

FILE will not accept file names containing spaces or commas, or file names longer than eight characters in the name and three in the extension.

Special Keys

Before you begin to use FILE, take a look at the IBM keyboard:
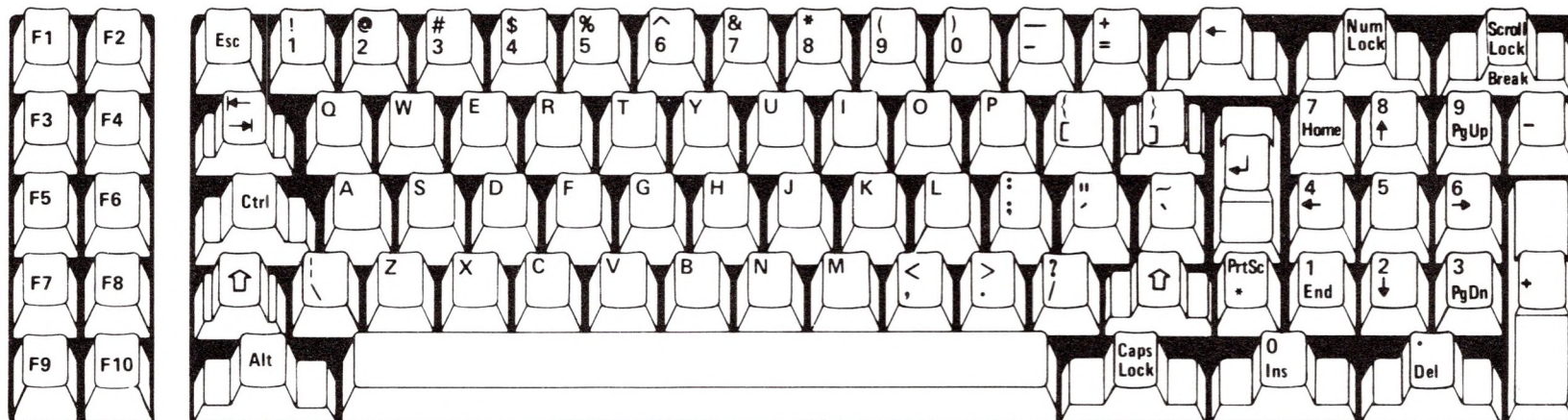
There are some special keys that you use when working with the FILE program. These keys are:

Control. Use the `Ctrl` key together with other keys to give special instructions to FILE. For example, when you see `Ctrl` `Home`, it means to press `Ctrl` and, while holding it down, press `Home`.
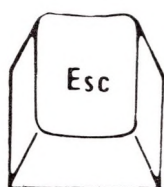
Escape. Use the `Esc` key at any point while you are using FILE to cancel the current operation and return to the Main Menu.
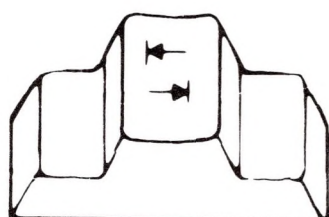
Tab. The `⇥` key moves the cursor from one item to the next on a menu or FILE form. With the Shift key `⇧`, it moves the cursor back to the previous item.
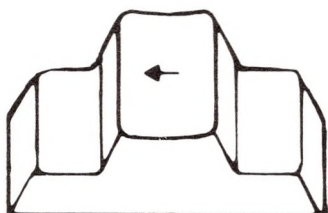
Backspace. The ⬅ key moves the cursor one space to the left and removes any character in that space. Use this key to correct mistakes you make when filling in items on the screen.
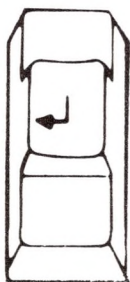
Enter. The ⏎ key returns the cursor to the beginning of the next line.
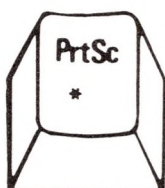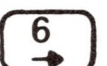
Print Screen. Use the PrtSc key with Shift ⇧ to print a copy of whatever is currently on the screen.
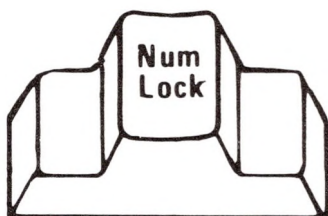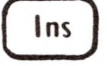
Number Lock. Press the Num Lock key to convert the section of keys at the right of the main keyboard into a numeric keypad.
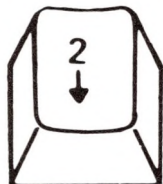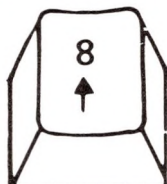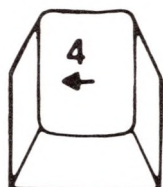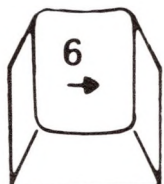
Cursor movement keys. These keys 6→ 4← 8↑ 2↓ move the cursor one space in the direction shown by the arrow. They do not erase any characters. (When you press the Num Lock key, these keys become part of the numeric keypad. Press Num Lock again to return to the cursor movement keys.)
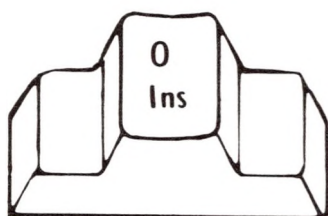
Insert. The Ins key switches back and forth from normal to insert mode. You can tell you are in insert mode because the cursor becomes a square block. In insert mode, when you type a character, FILE inserts it at the cursor location, moving other characters on the line one location to the right to make room. If the line is full, nothing happens. (When you press the Num Lock key, this key becomes the zero of the numeric keypad.)
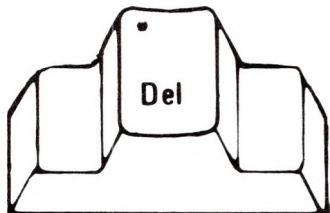
Delete. The ⌊Del⌋ key deletes the character at the current cursor location, moving other characters on the line one location to the left to fill up the space. (When you press the ⌊Num Lock⌋ key, this key becomes the decimal point key and does not delete characters.)
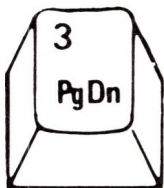
Page Down. The ⌊PgDn⌋ key will bring up the next page of the form, or an attachment page if the page on the screen is the last page of the form.
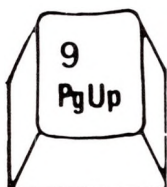
Page Up. The ⌊PgUp⌋ key will recall the previous page of the form to the screen. You can review it and make changes if you wish.

The following special function keys, located to the left of the main keyboard, are available for use when the key name appears on the bottom line of the screen:
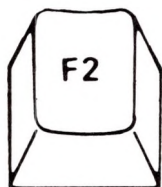
⌊F2⌋ prints the form (all pages) that is currently on the screen.
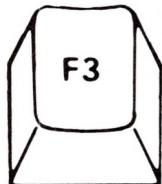
⌊F3⌋ removes the form (all pages) that is currently on the screen.
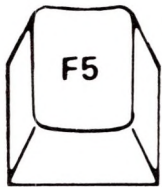
⌊F5⌋ enters the date at the cursor position.
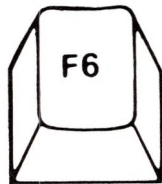
⌊F6⌋ enters the time at the cursor position.

⌊F10⌋ begins (or continues) the specified function.

I-27
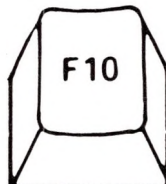
Summary

- *pfs:*FILE is a computer program that helps you store and retrieve information in a way that is familiar, fast, reliable, and powerful.

- To use FILE, you need the following:

  — an IBM Personal Computer with at least 64KB of memory

  — one or (preferably) two diskette drives

  — an IBM Monochrome Display or other 80-column video monitor

  — a printer (optional)

- [F10] indicates that FILE is to continue with its operation.

- [Esc] cancels the current operation and returns to the Main Menu.

- Make backup copies of your data files to prevent the loss of valuable data.

- Use only high-quality diskettes.

- Make a backup copy of the FILE program diskette before using *pfs:*FILE.

Chapter 1.   Design File

Contents
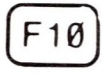
Notes

Chapter 1. Design File

This chapter explains how to use the DESIGN FILE
function to create a new file. The chapter is divided
into two parts: the first part explains the procedure to
use when creating a file; the second part is an example,
with step-by-step instructions so you can follow along
on your own IBM Personal Computer.

You create a new file by designing the form you will
use to enter and retrieve information. The blank form
describes the items of information that will be stored
in the file. FILE stores the form design as a new file on
a diskette that we will call the data diskette. Later, you
fill in the form with information, and FILE stores that
information in the same file.

Starting the DESIGN FILE Function

To select the DESIGN FILE function, type 1 in the
SELECTION NUMBER item of the Main Menu, press
the tab ⎄ key to move the cursor to the FILE
NAME item, and type the name you want to give to the
new file. If your data diskette is not in drive A, precede
the file name with a drive name and a colon (:). (The
section "*pfs:* Data File Names," in the Introduction,
describes the use of drive and file names.) When you
have filled in both items, press F10 and the Design
File Menu will appear:

```
DESIGN FILE MENU

1   CREATE FILE

2   CHANGE DESIGN


SELECTION NUMBER:


                                    F10-Continue
```
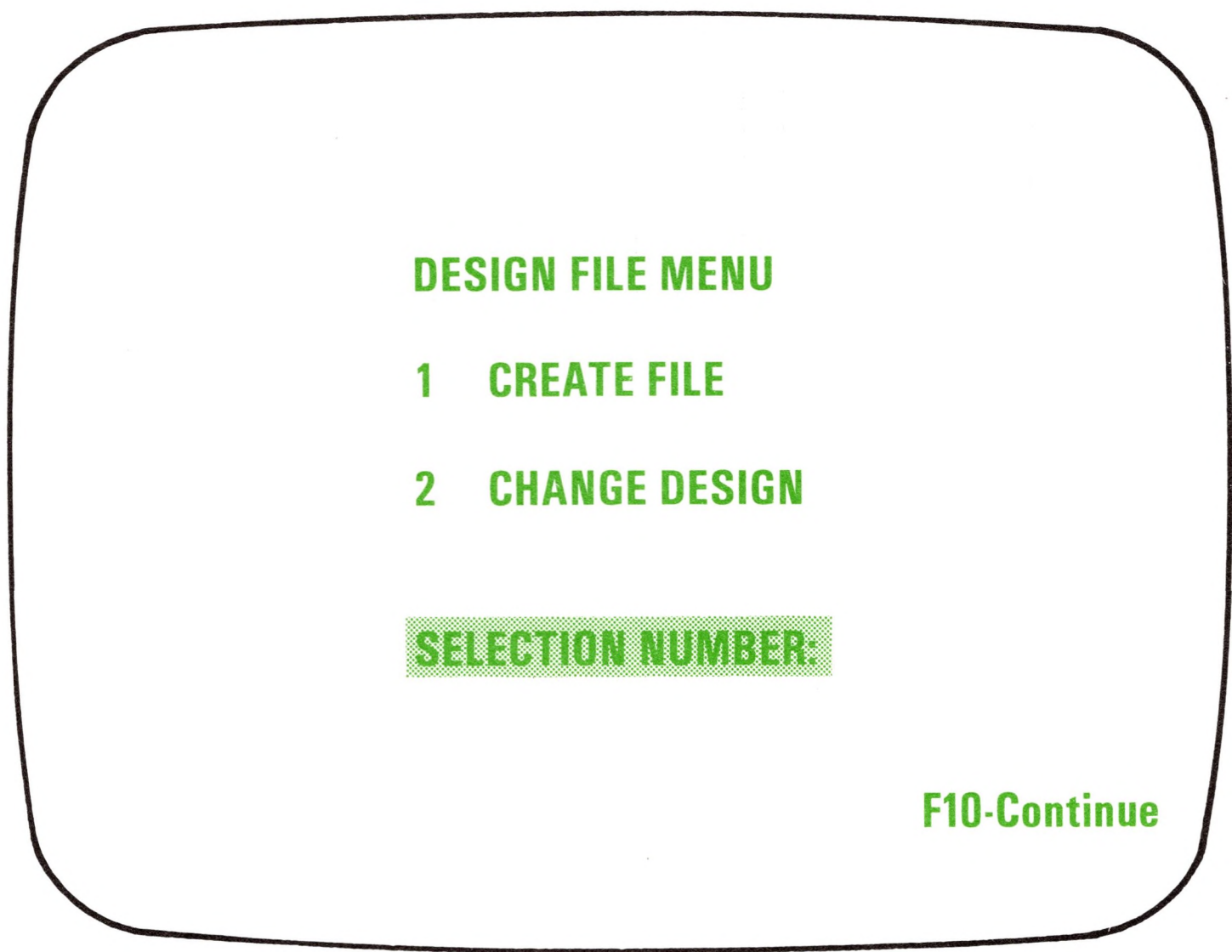
The DESIGN FILE function has two options, as shown
on this menu. You use Create File to create a new file;
you use Change Design to modify the form design for
an existing file. The Change Design option is discussed
in Chapter 8.

Creating a File

To create a new file, enter 1 for the SELECTION NUMBER item, and press F10 to continue. A blank screen will appear for you to design the form. It will look similar to this:

```
╭──────────────────────────────────────────────╮
│                                                │
│                                                │
│                                                │
│                                                │
│                                                │
│                                                │
│                                                │
│  _____  │
│                                                │
│  ① File: SAMPLE      ② DESIGN        ③ Page 1  │
│  ④ F5-Date           F6-Time         F10-Continue │
╰──────────────────────────────────────────────╯
```
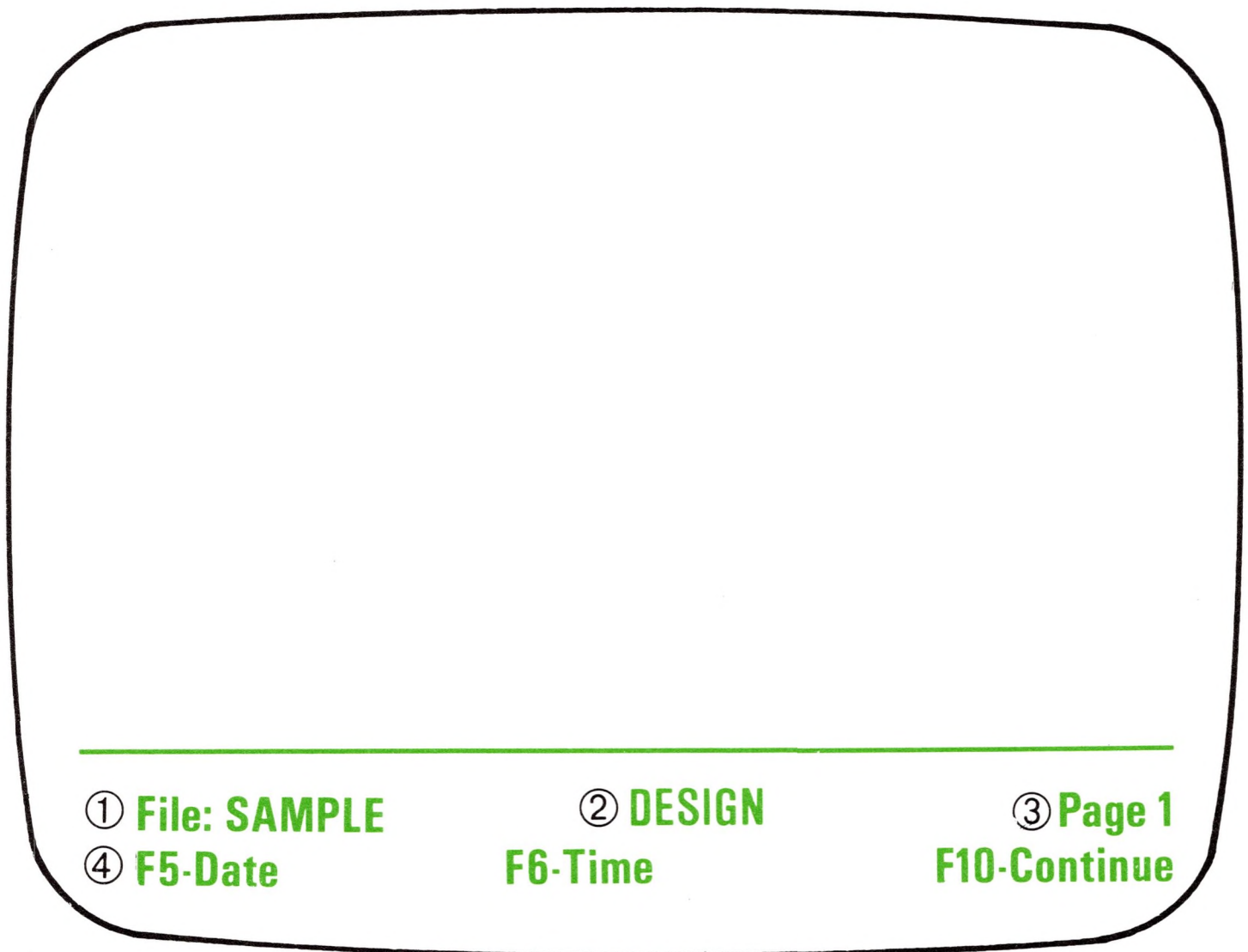
Notice that some information is displayed in a message area the bottom of the blank screen. This message area tells you:

① the name of the file you are creating or working with

② What information *pfs:*FILE expects you to enter (in this case, the blank form design)

③ which page of the form is on the screen

④ which function keys are available and what they will do

If the name you entered in the FILE NAME item of the Main Menu already exists on the diskette, FILE will display the message **THE FILE ALREADY EXISTS** before displaying the blank screen. If you want to replace the existing file with the new file, press F10 ; otherwise, cancel the operation by pressing Esc and start again with a different name.

Entering the Form Design

A form is made up of items that describe the information you will eventually enter. Each item has a name that ends with a colon (:). Following the item is a space where you will later enter the information.

First, determine what items you need to describe your information, then use the keyboard and screen to create an image of the form you want.

To enter the item names, simply move the cursor wherever you want and type the desired item name. End each item name with a colon. You can continue moving the cursor around the screen, making additions and corrections to your form, until you have it looking just the way you want it.

The following keys make it easy for you to move the cursor around:

⏎	returns the cursor to the beginning of the next line
4 ←	moves the cursor to the left one space, but does not erase a character
6 →	moves the cursor to the right one space
8 ↑	moves the cursor up one line

⬇️ moves the cursor down one line

Home moves the cursor to the top left-hand corner of the screen

In addition, the Ins and Del keys can be helpful when entering item names. See "Special Keys" in the Introduction for a full description of these keys.

Storing the Form Design

When you are satisfied that the blank form has all the right items in the right places, you are ready to store it in the file on the data diskette. To do this, press F10 FILE will store the blank form in the diskette file and return to the Main Menu. FILE is now ready to accept another function selection.

Some Suggestions on Form Design

As you design your form, keep in mind these two points:

- You will use this blank form for both storing and retrieving information. When you use the blank form to retrieve something, the retrieve specification could actually occupy more character positions than the data itself. An item named PRICE may only store a maximum of three digits, but if you design your form with only three spaces following PRICE, you will not have room, for example, to ask for all prices less than 100 (PRICE: < $100) in the retrieve specifications. It is a good idea to leave plenty of space for each item.

- When you are ready to retrieve information, FILE lets you enter a retrieve specification in any item of the form. Internally, FILE treats the first item of the form a little differently. When it is searching based on the first item, FILE goes directly to the desired form on the diskette file. For other items in the form, FILE searches through each form in the file, which takes longer. Therefore, it is a good idea to make the first item in your form the one you will look for most frequently. This will provide the fastest possible retrieval.

Multiple Page Forms

Your form can consist of more than one page, though the screen can only show one page at a time. Each page can contain a maximum of 100 items. If you need more than one page for a form, you can create up to 31 additional pages. Then you can move back and forth between pages, like turning pages in a booklet, by using these special keys:

`PgDn` Page Down. This will bring up the next page of the form (in this case, a blank page). You can continue to type more item names.

`PgUp` Page Up. This will recall the previous page of the form to the screen. You can review it and make changes if you wish.
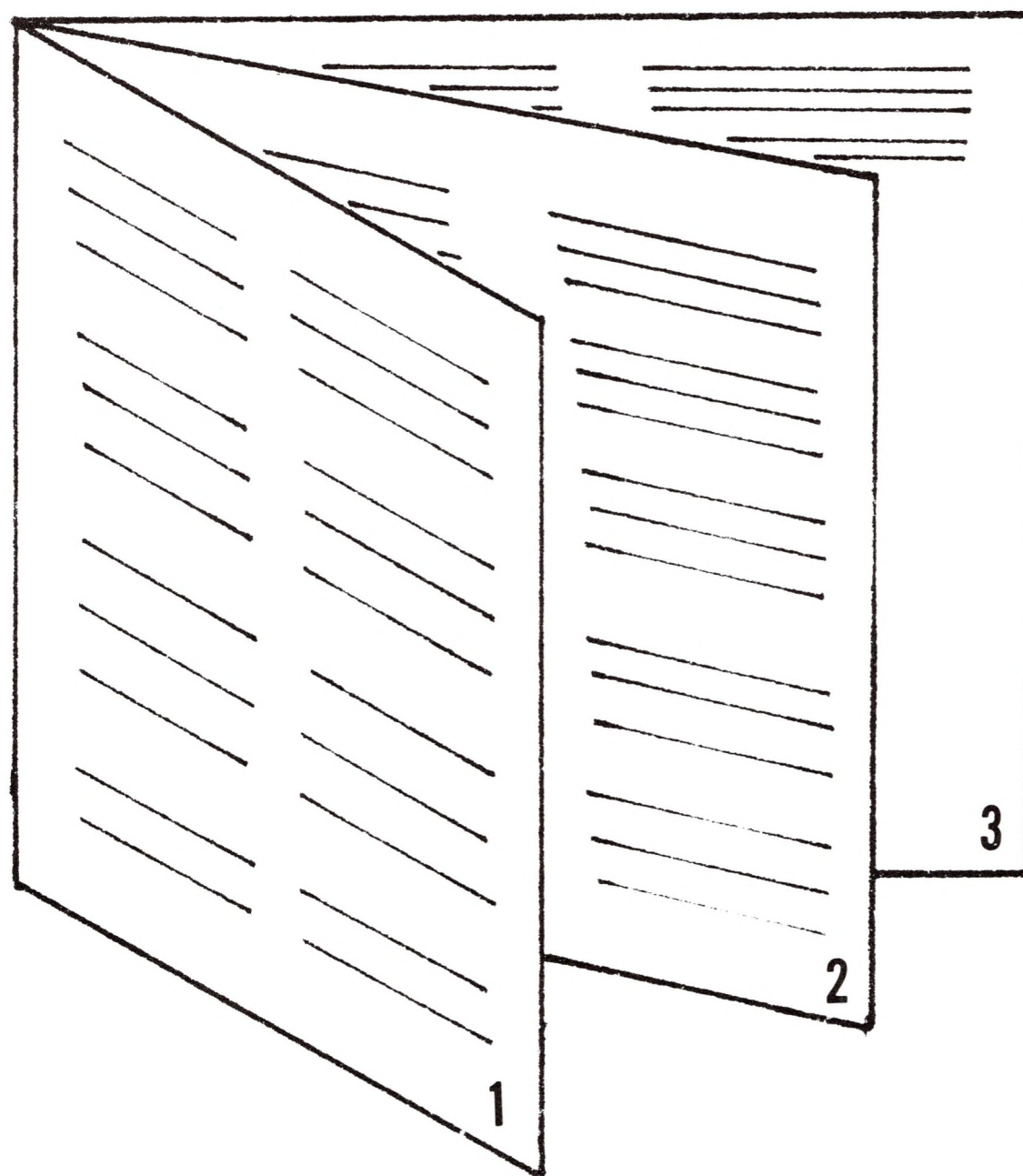
As you move through your multi-page form, you'll see the current page number displayed in the message area at the bottom of the screen. An asterisk (*) appearing to the right of the page number indicates there are additional pages in that form.

Erasing a Page of the Form Design

If you want to erase a page of the form design, display that page and press [Ctrl][Home]. The currently displayed page of the form will be erased, while other pages remain unchanged. (When you erase a page, it does not remove the page from the form design, it merely turns it into a blank page. To remove it, you will need to Change the Design — see Chapter 8.)

Cancelling the DESIGN FILE Function

If at any time you want to stop the DESIGN FILE function, press the [Esc] key to Escape to the Main Menu.

Warning

If you press ⎡Esc⎤ while designing a form, that form is not saved on the diskette. The current page and any previous pages are permanently lost. You must press ⎡F10⎤ to save the form on diskette.

Example

By following along with this example, you will create a file to store typical personnel information for six sample employees. The personnel form that you want to duplicate as the blank form for the file looks like this:

```
┌─────────────────────────────────────────────┐
│          PERSONNEL RECORD FORM              │
├─────────────────────────────────────────────┤
│                                             │
│   Employee #              Hired             │
│                                             │
│   Name                                      │
│                                             │
│   Address                                   │
│                                             │
│   City                State        Zip      │
│                                             │
│   Job Title                                 │
│                                             │
│   Salary                                    │
│                                             │
└─────────────────────────────────────────────┘
```

If you haven't already done so, start the FILE program by following the instructions in the Introduction (See page I-10).

To begin, make sure the Main Menu is displayed (press [Esc] if necessary) and a blank, formatted diskette is in drive A. The cursor should be in the SELECTION NUMBER item. Type:

1

for Design File, then press the Tab [⇄] key to move the cursor to the FILE NAME item. Type:

STAFF

to give the file its name. This file will be created on the diskette in drive A, since a drive name was not included. Your screen should look like this:

PFS:FILE FUNCTION MENU

1 DESIGN FILE   5 PRINT

2 ADD   6 REMOVE

3 COPY   7 EXIT PFS:FILE

4 SEARCH/UPDATE

SELECTION NUMBER: 1

FILE NAME: STAFF

F10-Continue

Now press [F10] to continue, and the Design File Menu will appear.

Since you are going to create a new file, type:

1

in the SELECTION NUMBER item, as shown below:

```
              DESIGN FILE MENU


          1   CREATE FILE

          2   CHANGE DESIGN


          SELECTION NUMBER: 1


                                F10-Continue
```

Press F10 again and the following screen will appear, ready for you to design the blank form:

```



File: STAFF              DESIGN              Page 1
F5-Date              F6-Time              F10-Continue
```

Information about employees is most frequently retrieved by employee number, so the item EMPLOYEE # will be the first item on the form. This will speed up the search process. The cursor should be in the top left-hand corner of the screen (press the [Home] key if it isn't), so type:

Employee #:

as the first item name. Remember to end it with a colon. Then press the [6→] key to move the cursor to the middle of the same line and type:

Hired:

Continue moving the cursor with the cursor movement keys and typing item names until the screen looks like this:

Employee #:   **Hired:**

Name:
Address:
City: **State:**   **Zip:**

Job Title:

Salary:

_____

File: STAFF   **DESIGN**   **Page 1**
F5-Date   **F6-Time**   **F10-Continue**

When you have entered all of the items on the form, press [F10] to continue. FILE stores the blank form on the data diskette in a new file named STAFF, then returns to the Main Menu:

PFS:FILE FUNCTION MENU

1   DESIGN FILE   5   PRINT

2   ADD   6   REMOVE

3   COPY   7   EXIT PFS:FILE

4   SEARCH/UPDATE
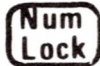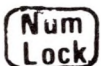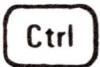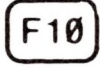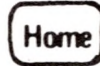
SELECTION NUMBER:

FILE NAME: STAFF

F10-Continue

Notice that the SELECTION NUMBER item has been cleared — at this point, you can enter another function selection. The FILE NAME item remains the same, since FILE assumes you are working with the same file until you enter a new name.

Summary

- The DESIGN FILE function has two options:

  1. Use Create File to create a new file, give it a name, and design the blank form that describes the information you want to store in it.

  2. Use Change Design to change the design of a file that already exists, whether or not that file already contains information. Chapter 8 discusses this information.

- The file is created on the diskette in the default drive unless you precede the name with a drive name (for example, B:STAFF).

- Duplicate *pfs:* file names are not allowed on the same diskette, and it is recommended that you not duplicate *pfs:* file names on other diskettes.

- End item names with a colon.

- ⇥ moves the cursor to the next item on the menu. With the Shift ⇧ key, moves to the previous item.

- ← moves the cursor back one space and removes a character.

- 4← moves the cursor to the left one space, but does not erase a character.

- 6→ moves the cursor to the right one space.

- 8↑ moves the cursor up one line.

- ⎣2↓⎦   moves the cursor down one line.

- ⎣Ins⎦   switches back and forth from normal to insert mode. When you press the ⎣Num Lock⎦ key, becomes part of the numeric keypad.

- ⎣Del⎦   deletes one character at a time, moving other characters to fill in the empty space. When you press ⎣Num Lock⎦ , becomes the decimal point for the numeric keypad.

- ⎣Num Lock⎦   converts the keys on the right of the main keyboard into a numeric keypad.

- ⎣←⎦   returns the cursor to the beginning of the next line.

- ⎣PgDn⎦   brings up the next page of the form.

- ⎣PgUp⎦   brings up the previous page for the form.

- ⎣Ctrl⎦ ⎣Home⎦   erases the current page.

- ⎣F10⎦   begins (or continues) the specified function. When you are finished designing the form, press this key to store the blank form on the data diskette.

- ⎣Home⎦   moves the cursor to the top left-hand corner of the screen.

- ⎣Esc⎦   stops the DESIGN FILE function and returns to the Main Menu. If part of the form has been designed, it is not saved.

Chapter 2.   Add

Contents

Add

Notes

Chapter 2.   Add

This chapter explains how to use the ADD function to store information in your *pfs:* file. Using ADD, you fill in the blank form with the information you want to keep, then store that filled-in form in the file. The example in the latter part of the chapter provides instructions for adding information to the file you created in Chapter 1.

The number of forms that can fit on a diskette depends on the capacity of the diskette, how many pages are in the form, how many items there are per page, and how much data is entered in each item. See "Appendix B. Diskette Storage Capacity" for an explanation of how to calculate the exact number of forms that will fit in a given situation.

Starting the ADD Function

To select the ADD function, have the Main Menu on your screen and type 2 in the SELECTION NUMBER item. Move the cursor to the FILE NAME item, and enter the name of the file to which you want to add forms. The diskette containing the file should be in drive A (if you use another drive, you must specify it as part of the file name). Press [F10] to indicate that FILE is to continue.

Next you will see the blank form from the file appear on the screen. For instance, the form from a phone message file would look like this:

```
 _____
/                                                \
|                                                 |
| Date:                                           |
| To:                          Time:             |
|                                                 |
| M:                                              |
| Of:                                             |
| Phone:                                          |
|                                                 |
|                                                 |
| Message:                                        |
|                                                 |
|                              Operator:          |
|                                                 |
| _____ |
|                                                 |
| ① File: MESSAGE       ② FORM 1        ③ Page 1 |
| ④ F2-Print Form   F5-Date   F6-Time  F10-Continue|
_____/
```

The item names are highlighted (black characters on green or white background) to easily distinguish them from the information that you enter. These names are protected so you cannot accidentally write over and destroy them. In the message area, FILE tells you:

(1) the name of the file you are using

(2) which forms you are adding to the file

(3) which page of the form is on the screen

(4) which function keys are available, and what they do

2-4

Filling in the Form

Use the special keys described in Chapter 1 to move the cursor and enter information in the items on the form.

You can add forms to the file in any order you like, that is, there is no need to enter them in alphabetical or numerical order. FILE will take care of finding the desired information when you need it.

Entering Dates and Times

When you enter a date into a form, use the format YY/MM/DD; for example, use 82/06/20 for June 20, 1982. Remember to use two digits for each part. This will make it easier for FILE to search for specific dates and manipulate them.

Times are best stored in a 24-hour format, HH:MM, as in 13:45 for 1:45 p.m. It is necessary that minutes be two digits, but it is not necessary for hours.

If you follow these conventions, you will be able to get sorted reports in order by date from *pfs:***REPORT** and to search the file for times greater than (later) or less than (earlier) some time of day.

The following special keys will automatically enter the date and time in the suggested manner:

F5   FILE will enter the current date at the cursor position in the form YY/MM/DD

F6   FILE will enter the current time at the cursor position in 24-hour format (HH:MM)

Filling in a Multiple Page Form

You can move through a multi-page form using:

[PgDn] to bring up the next page of the form.

[PgUp] to return the previous page of the form to the screen. You can review the information and make any changes you wish.

If the last page of your form is displayed and you press [PgDn], a new page with an item named ATTACHMENT appears.

```
ATTACHMENT:




_____

File: MESSAGE              FORM 1                Page 2
F2-Print Form    F5-Date    F6-Time        F10-Continue
```

You can continue to add attachment pages using [PgDn] until you run out of room on the diskette. This allows you to append information to any form. If you need to add some special information to a particular form, enter it as an attachment. If you forgot to include an item when you designed the form, use Change Design to add it (Chapter 8 describes the Change Design function).

Correcting Mistakes

If you make a mistake while entering data into a form, you can easily correct it:

1. If the mistake is in the same item as the cursor, simply use the Backspace ⬅ key to erase the last few characters and retype the correct information.

2. If the mistake is in another item on the form, use the Tab ⮆ key or the cursor movement keys to move the cursor to that item, then type in the correct information.

3. If you want to re-enter all the items on a particular page, you can press Ctrl Home . This erases all the information entered on the current page and returns the cursor to the first item. Information on other pages is unaffected and item names are not erased.

Printing the Entered Information

If you want to print a copy of the information you have entered on a form, press [F2] when any page of the form is on the screen. The following screen appears, asking for printing instructions:

```
                      PRINT OPTIONS



           PRINT ITEM NAMES (Y/N): Y


           PRINT TO: LPT1:



           LINES PER PAGE: 66


           NUMBER OF COPIES: 1



                                    F10-Continue
```

The Print Options screen appears whenever FILE is about to start printing something. It allows you to control the output. Type in the desired value for each option, or press [F10] to print your form using the default responses shown on the screen. (See Chapter 5 for a description of other FILE printing capabilities.)

Print Item Names (Y/N): Enter Y to print the item names; N to print the information without item names.

Print To: If you want to print to a
                                 printer, enter one of the
                                 following:

                                 LPT1: for the IBM 80 CPS
                                         Matrix Printer or
                                         another parallel
                                         printer

                                 AUX: or COM1: for a serial
                                                 printer

                                 If you want to print the
                                 report to a diskette file,
                                 enter the name of the file,
                                 including the drive name if
                                 the diskette is not in the
                                 default drive. The default
                                 drive is drive A unless you
                                 have changed it.

Lines Per Page: Enter the number of lines on
                                 each page of your printer
                                 paper, perforation to
                                 perforation. Standard 8½
                                 by 11 fanfold printer paper
                                 has 66 lines per page. A
                                 setting of 66 prints one
                                 form per standard page of
                                 paper. A setting of 33 gives
                                 you two forms per standard
                                 page of paper.

Number of Copies: This specifies how many
                                 copies of each form will be
                                 printed.

When you have filled in the items, press ⌊F10⌋ to
begin printing the form.

Storing the Information in the File

When you have entered the information for all pages of a form, press ⌈F10⌉ to store it in the specified file on the data diskette. A new blank form, with the next form number, will appear on the screen, ready for you to enter more information.

Cancelling the ADD Function

You may press ⌈Esc⌉ at any time to exit from the ADD function, but if you do it before you have stored your form in the diskette file (using ⌈F10⌉), the information you entered into that form (all pages) will be permanently lost. Also, you must return to the Main Menu before putting in another data diskette. If you change diskettes while in ADD, you may destroy the data on your diskette.

Example

In the example in the last chapter, you created a personnel file named STAFF. By following the example in this chapter, you will add information to that file for six sample employees. If you do not have the STAFF file available, refer to the example in Chapter 1 and create the file before attempting to follow the instructions in this section.

To get started, return to the FILE Main Menu (press ⌈Esc⌉ or start the program if necessary). Then type 2 for the SELECTION NUMBER item. Place the data diskette that contains the STAFF file in drive A, and enter the name STAFF in the FILE NAME item if it is not already there. The screen should look like this:

```
      PFS:FILE FUNCTION MENU

1    DESIGN FILE          5    PRINT

2    ADD                  6    REMOVE

3    COPY                 7    EXIT PFS:FILE

4    SEARCH/UPDATE


          SELECTION NUMBER: 2

          FILE NAME: STAFF

                              F10-Continue
```

Press ⌜F10⌟ to continue. FILE displays the blank form for you to fill in:

```
Employee #:              Hired:

Name:
Address:
City:                    State:        Zip:

Job Title:

Salary:


_____

File: STAFF              FORM 1              Page 1
F2-Print Form    F5-Date     F6-Time     F10-Continue
```
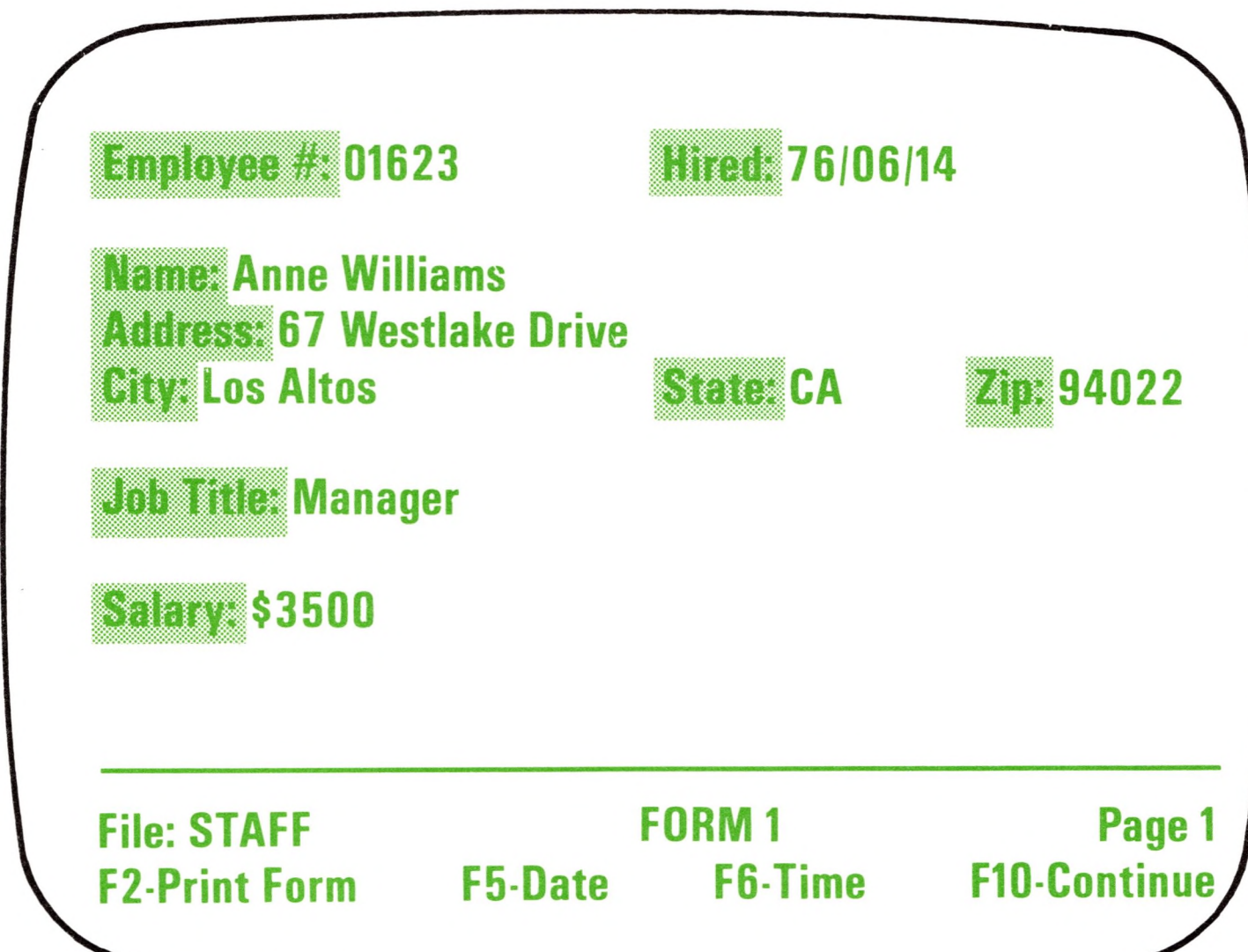
You are ready to enter the information in the first form. The cursor is already in the EMPLOYEE # item, so type:

01623

Press the tab [⇥] key to move to the next item (Hired) and type:

76/06/14

Continue pressing the tab [⇥] key to move to each item, and type in the rest of the information shown below:

```
Employee #: 01623          Hired: 76/06/14

Name: Anne Williams
Address: 67 Westlake Drive
City: Los Altos            State: CA         Zip: 94022

Job Title: Manager

Salary: $3500

_____

File: STAFF                FORM 1                    Page 1
F2-Print Form      F5-Date      F6-Time      F10-Continue
```

Press [F10] and FILE will store the form on the diskette. The blank form now reappears and you are ready to fill in the information for the next form. Notice that the message area indicates that this is FORM 2. Type the following information into the form:

```
Employee #: 16445        Hired: 80/08/12

Name: Jennifer Young
Address: 2421 Broadway
City: Boston              State: MA         Zip: 02109

Job Title: Salesperson-East

Salary: $1950

_____

File: STAFF                 FORM 2                  Page 1
F2-Print Form        F5-Date      F6-Time      F10-Continue
```

For this particular employee, you need to keep some additional information. To get an attachment page, press [PgDn] . Since the original design of the blank form only contained one page, an attachment page will appear:

```
ATTACHMENT:




_____

File: STAFF                 FORM 2                  Page 2
F2-Print Form        F5-Date      F6-Time      F10-Continue
```

Type in the additional information shown below:

```
┌─────────────────────────────────────────────┐
│                                             │
│  ATTACHMENT: Has had two years of European experience │
│                                             │
│                                             │
│                                             │
│                                             │
│                                             │
│                                             │
│ ─────────────────────────────────────────── │
│                                             │
│  File: STAFF              FORM 2        Page 2 │
│  F2-Print Form    F5-Date    F6-Time  F10-Continue │
└─────────────────────────────────────────────┘
```

Now press $\boxed{\text{F1\emptyset}}$ and FILE will store both pages of FORM 2 on the diskette.

The blank form reappears with FORM 3 in the message area. Fill in the next four forms with the information shown below, and store them on the diskette:

FORM 3

Employee #: 13029   Hired: 80/02/01

Name: Mike Cooper
Address: 907 Sunset Court
City: Portland   State: OR   Zip: 97208

Job Title: Salesperson-West
Salary: $1900

2-14

FORM 4

Employee #: 09883   Hired: 76/04/15

Name: Ted Russell
Address: 437 Oak Street
City: Palo Alto   State: CA   Zip: 94301

Job Title: Engineer
Salary: $2500

FORM 5

Employee #: 07531   Hired: 77/06/29

Name: Sara Brown
Address: 1552 Bay Road
City: Menlo Park   State: CA   Zip: 94025

Job Title: Secretary
Salary: $1200

FORM 6

Employee #: 10764   Hired: 79/10/23

Name: John Andrews
Address: 6811 Cypress Lane
City: Dayton   State: OH   Zip: 45401

Job Title: Salesperson-Midwest
Salary: $1850

After you have stored the last form, the screen should look like this:

Add

```
┌─────────────────────────────────────────────────┐
│                                                   │
│   Employee #:              Hired:                 │
│                                                   │
│   Name:                                           │
│   Address:                                        │
│   City:                    State:      Zip:       │
│                                                   │
│   Job Title:                                      │
│                                                   │
│   Salary:                                         │
│                                                   │
│   ─────────────────────────────────────────────  │
│   File: STAFF          FORM 7            Page 1   │
│   F2-Print Form    F5-Date   F6-Time  F10-Continue│
│                                                   │
└─────────────────────────────────────────────────┘
```

Press [Esc] to return to the Main Menu. The Main Menu now appears and FILE is ready to accept another function selection.

Summary

- Use the ADD function to store information into your file.

- To enter data, you fill in the blank form that you designed when you created the file.

- The item names appear in highlighted format; this protects them from overwriting.

- [F5] enters the current date in YY/MM/DD format.

- [F6] enters the current time in 24-hour format.

- [F2] prints all pages of the form currently on the screen.

- **Esc** ends the ADD function and returns to the Main Menu. If you press **Esc** before storing the filled-in form, the information for that form will be lost.

- **F10** stores the information entered for all pages of the current form.

Notes

Chapter 3. Copy

Contents

Copy

Notes

Chapter 3. Copy

This chapter explains how to use the COPY function to copy the files on your data diskette. After you design a form and enter the information, you can copy part or all of the file. In fact, we recommend that you keep at least one and preferably two copies of each *pfs:* file, just in case you damage or lose the original file.

COPY has three options:

1 COPY DESIGN ONLY   This option allows you to copy just the blank form from the file.

2 COPY SELECTED FORMS   This option allows you to choose among the filled-in forms in your data file and copy these selected forms to another file. This option does not copy the form design.

3 COPY WHOLE FILE   This option lets you copy the entire file, including the blank form and all the filled-in forms.

Each option is discussed in a separate section, with an example in each section for you to follow as you learn to use that option. These examples use the STAFF file that you created in earlier chapters.

If you have only one diskette drive, we recommend that you not use this function. To copy your files, use the DOS COPY or DISKCOPY commands (see Appendix C, "Copying a File," or your DOS manual for details).

Copying the Design Only

The Copy Design Only option lets you copy just the form design of your file to a new file. You use this option to start another file on a new diskette when your current diskette is full. You also use this option to provide a new file with a form design before copying selected forms to that file. The Copy Design Only function destroys any information that exists in the destination file.

Example

In this example, you will copy the form design of the STAFF file to a new file. If you do not have the file named STAFF, refer to Chapters 1 and 2 to create the file and add information to it before attempting to follow the instructions in this example.

To begin, make sure the Main Menu is displayed (press Esc or start the program if necessary). Then press:

3

to select the COPY function, and type the name:

STAFF

in the FILE NAME item. Place the diskette that contains STAFF in drive A, and press F10 to go on to the Copy function Menu:

```
COPY FUNCTION MENU


    1    COPY DESIGN ONLY

    2    COPY SELECTED FORMS

    3    COPY WHOLE FILE


    SELECTION NUMBER:


    NEW FILE NAME:

                          F10-Continue
```

You want to copy the design only, so type:

1

in the SELECTION NUMBER, then press the Tab
⟨⇆⟩ key to move to the NEW FILE NAME item. Put a
blank, formatted diskette in drive B, and type:

B:NEWSTAFF

in that item. Then press ⟨F10⟩ and FILE will copy the
form design from the STAFF file to a new file, named
NEWSTAFF, that it creates on the diskette in drive B.

Note that the new file name must be different from the
original file name so FILE can distinguish between
them. (You can use the same name on different
diskettes, but we do not recommend that you do so). If
you enter the name of an existing file, FILE will display
the message:

THE FILE ALREADY EXISTS.

You can then press ⟨Esc⟩ to return to the Main Menu
or press ⟨F10⟩ to replace the existing file.

Copy

Copying Selected Forms

You use the Copy Selected Forms option to select certain forms from your file and copy them to another file. Use this option when you want to split your file, either because the file is too large or because you want to split off a special interest group of forms to a new file. You can also use it to copy selected forms from different diskettes to form one file.

When using Copy Selected Forms, the new file must already contain the blank form design before the copy can be made. You can copy the blank form design to the new file (using Copy Design Only) first, or you can use a partially-full file that already has a form design.

This function can be very time-consuming if you are copying from a large file. If at any time you want to quit copying the selected forms, press [Esc] to return to the Main Menu. Those forms that have already been copied will remain in the new file.

Note: Whenever Copy Selected Forms is used, the destination file will usually have the same form design as the source file. If it does not, FILE will reorganize the data to match the destination file design according to these rules:

1. When item names from the old form design are not included somewhere in the new design, FILE will not copy the item data. FILE looks for the item name first on the equivalent page of the new design, then on the other pages consecutively.

2. If the number of characters in the old item do not fit into the new item design, FILE stops copying and presents this message:

```



                          P R O B L E M

                     AN ITEM IS TOO LONG


                Press ESC to abandon this operation
                      Press F10 to continue



```
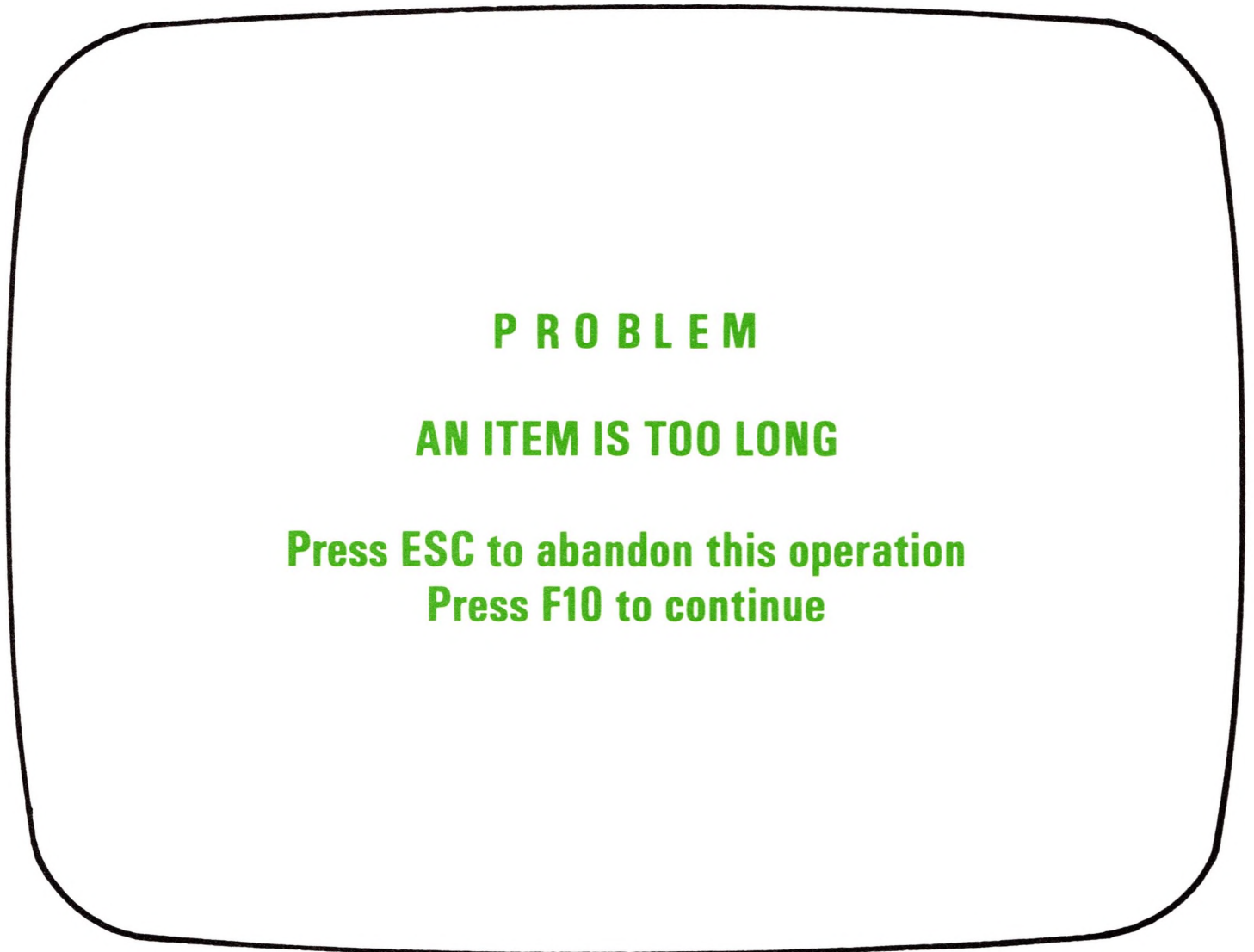
You can press ⎡Esc⎤ to return to the Main Menu, or press ⎡F10⎤ to display the form with the overlong item. The cursor will appear under the first character of the item that will not fit in the new design. Delete characters starting at the cursor, or retype the data so that it will fit.

Example

Earlier in this chapter, you copied the form design from the STAFF file to a new file that you named NEWSTAFF. In this example, you will copy the forms for employees who live in California from the STAFF file to the NEWSTAFF file.

To begin, make sure the Main Menu is displayed (press Esc or start the program if necessary). Insert the diskette that contains the STAFF file in drive A, and the diskette that contains the NEWSTAFF file in drive B. The cursor should be in the SELECTION NUMBER item, so type:

3

to select the COPY function, press the Tab ⇥ key to move to the FILE NAME item, and (if STAFF is not already entered for that item) type:

STAFF

The screen will look like this:

```
              PFS:FILE FUNCTION MENU


  1   DESIGN FILE              5   PRINT

  2   ADD                      6   REMOVE

  3   COPY                     7   EXIT PFS:FILE

  4   SEARCH/UPDATE


              SELECTION NUMBER: 3

              FILE NAME: STAFF

                                    F10-Continue
```

Press [F10] to continue, and the Copy Function Menu appears:

```
COPY FUNCTION MENU


1   COPY DESIGN ONLY

2   COPY SELECTED FORMS

3   COPY WHOLE FILE


SELECTION NUMBER:

NEW FILE NAME:
                                    F10-Continue
```

You fill in this menu to select the Copy Selected Forms option and to indicate the name of the destination file. Type:

2

for the SELECTION NUMBER, press the Tab [⇥] key to move the cursor to the NEW FILE NAME item, and type:

B:NEWSTAFF

for that item. The B: indicates that the NEWSTAFF file is on the diskette in drive B. Press [F10] to continue. FILE displays the blank form for you to identify which forms you want to copy:

Copy

3-9

```
Employee #:                    Hired:

Name:
Address:
City:                    State:        Zip:

Job Title:

Salary:
_____

File: STAFF              RETRIEVE SPEC            Page 1
F5-Date                  F6-Time             F10-Continue
```

All the retrieve specifications described in Chapter 4
can be used to select which forms to copy. For this
example, you want to copy those forms that contain
California (or an abbreviation) in the STATE item. To
enter the retrieve specification, press the Tab
⭾ key five times to reach the STATE item. Type:

Ca..

in that field. The .. allows for variations in the
abbreviation used for California (a match will be found
for Ca, Cal, of Calif, or California). The screen will
look like this:

```
Employee #:                    Hired:

Name:
Address:
City:                          State: Ca. .    Zip:

Job Title:

Salary:
_____

File: STAFF            RETRIEVE SPEC              Page 1
F5-Date                   F6-Time             F10-Continue
```

Now press [F10] and FILE will begin selecting forms
and copying them to the new file. FILE displays each
form as it copies it. When the copy has been
completed, press [F10] to return to the Main Menu.

Splitting and Merging Files

When your files have grown in size, you may want to
split off part of one file to form a new file. Or, you may
want to merge files from different diskettes to form
one file. Copy Selected Forms is used both for splitting
or merging files. In either case, the file into which you
copy the forms must already contain a form design; it
may also contain other forms.

To split part of a file off from the rest of a file, copy the blank form design to a file on another diskette. You can use the same design or change it. Then use Copy Selected Forms to select the forms you want and copy them to the new file diskette. For example, if you have a large file that contains order information for all products, you might want to split it into several smaller files, each of which contains order information for a single product.

To merge two or more files, you also use Copy Selected Forms to select and copy the forms you want moved. Since the Copy Selected Forms function does not destroy the destination file, but appends the new forms to it, by using the function repeatedly you can merge separate files into one new file. For example, if you have separate customer files for several products, you might want to merge those files to produce one master customer file. Before merging files, make sure you have estimated their size so you do not exceed the storage capacity of the diskette (see Appendix B, "Diskette Storage Capacity").

Copying the Whole File

Use the Copy Whole File option mainly to make copies of your original file in case you lose or damage it. This copy function destroys any information that exists in the destination file. Make sure that the data diskette you are copying to has enough available space to accommodate the new file. (See "Checking the Diskette Space" in Appendix C to learn how to check the diskette for space.)

Example

By following this example, you will make a backup copy of the STAFF file created in the first two chapters. Be sure you have a diskette with enough space on it to receive the copy.

To begin, return to the Main Menu (press [Esc] or start the program if necessary). Put the diskette that contains the STAFF file in drive A, and a blank formatted diskette in drive B. Then type:

3

in the SELECTION NUMBER Item, press the Tab [⇥] key to move to the FILE NAME item, and enter the name:

STAFF

if it is not already entered for that item. The screen should look like this:

PFS:FILE FUNCTION MENU

1	DESIGN FILE	5	PRINT
2	ADD	6	REMOVE
3	COPY	7	EXIT PFS:FILE
4	SEARCH/UPDATE		

SELECTION NUMBER: 3

FILE NAME: STAFF

F10-Continue

Now press [F10] and FILE will display the following screen:

```
COPY FUNCTION MENU


   1   COPY DESIGN ONLY

   2   COPY SELECTED FORMS

   3   COPY WHOLE FILE



   SELECTION NUMBER:

   NEW FILE NAME:

                              F10-Continue
```

You want to copy the entire file, so type:

3

for the SELECTION NUMBER. Press the Tab ⇥ key to move the cursor to the NEW FILE NAME item, and type:

B:STAFF2

to indicate that you want the file to be copied to a new file named STAFF2 on the diskette in drive B. The screen will look like this:

```
        COPY FUNCTION MENU


    1   COPY DESIGN ONLY

    2   COPY SELECTED FORMS

    3   COPY WHOLE FILE


    SELECTION NUMBER: 3

    NEW FILE NAME: B:STAFF2

                        F10-Continue
```

Like the other copy options, the file name that you
enter in this menu must be different from the original
file name, so that FILE can distinguish between the
two. (You can use the same file name on different
diskettes, but we do not recommend that you do so.)

Now press [F10] and FILE will copy the file. An exact
copy of STAFF now exists on the diskette in drive B,
and is named STAFF2. When the COPY function is
complete, FILE returns to the Main Menu.

Summary

- Use the COPY function to copy some or all your
  information from one file to another.

- There are three COPY options:

    1. Copy the blank form design only. Use this option to start a new file when the original file becomes full.

    2. Copy selected forms. Use this option to split files that become too large, or merge two files into one.

    3. Copy the entire file. Use this option to make an exact duplicate of the original file for safekeeping.

- The new file generated must have a name different from the original file name, or be on a different diskette. We recommend that you give it another name anyway, to make it easily distinguishable from the original file.

Chapter 4. Search/Update

Contents

Notes

Chapter 4.   Search/Update

This chapter explains how to retrieve and update information from your file. Using the SEARCH/ UPDATE function, you indicate which forms you want to retrieve. FILE retrieves the forms that qualify, and displays them one by one on the screen. When a form is on the screen, you can remove it, print a copy of it, or update the information previously entered. The example at the end of this chapter explains how to search and update a form using the STAFF file.

Entering the Retrieve Specifications

FILE can search for forms based on the contents of any page, including attachment pages. You indicate which forms you want by recalling the blank form from the diskette file and filling it in with information that describes what it is you want to find. The items you enter here are called retrieve specifications. They can be divided into five categories:

1.   Full item match

2.   Partial item match

3.   Numeric item match

4.   Numeric range match

5.   The "Not" match

These retrieve specifications are described below. If you do not enter any retrieve specifications, FILE will retrieve all the forms in the file, starting with the last form entered. You can enter retrieve specifications in as many items as you wish; FILE will retrieve only those forms that satisfy all entered specifications.

1. Full item match

If you are looking for a specific item, the retrieve specification consists of the characters that exactly match the information in the item you wish to find. In determining whether or not there is a match, FILE uses the following rules:

- FILE ignores spaces before the first character and after the last character.

- FILE treats multiple spaces within the items as a single space.

- FILE does not distinguish between upper and lower case

For fastest possible retrieval, use a full item match in the first item of your form. With this, FILE can find any form in a few seconds.

Assume you have a file containing phone messages and you want to find all messages for Jeff Stribling. You would enter characters that exactly match JEFF STRIBLING. The retrieve specification would look like this:

```
Date:                              Time:
To: JEFF STRIBLING


M:
Of:
Phone:


Message:



                                   Operator:
  _____

File: MESSAGE          RETRIEVE SPEC          Page 1
F5-Date              F6-Time              F10-Continue
```

The following items will also match:

TO: JEFF STRIBLING	FILE ignores leading and trailing spaces.
TO: JEFF Stribling	FILE treats internal multiple spaces as one, and ignores the difference between upper and lower case.

These items will not match:

TO: MR. JEFF STRIBLING	the MR. does not match.
TO: JEFF STRIBLING JR.	the JR. does not match.
TO: JEFF	STRIBLING is missing.

2. Partial item match

If an item contains several pieces of information, you can have FILE search for only those portions that interest you. The retrieve specification consists of the characters that interest you, preceded and/or followed by two periods .. (this symbol means ignore unwanted characters). FILE takes the characters preceding and/or following the .. symbol and tries to find an occurrence of them anywhere within the item. (Multiple spaces are treated as a single space.)

You can also use .. to search for forms that have anything entered for a specific item.

Assume you still want to search through your message file for all messages for Jeff Stribling, but you don't know exactly how the name was entered each time. The screens below show three different ways of entering retrieve specifications for Jeff Stribling's messages, with potential problems pointed out in each case.

```
Date:                          Time:
To: JEFF..


M:
Of:
Phone:


Message:



                               Operator:


_____

File: MESSAGE           RETRIEVE SPEC              Page 1
F5-Date                 F6-Time               F10-Continue
```

JEFF.. means ignore all characters following JEFF

These items will match:

TO: JEFF   FILE ignores leading spaces.

TO: JEFF STRIBLING   or

TO: JEFFREY STRIBLING or

TO: JEFF WARNER   FILE ignores everything following JEFF.

This item will not match:

TO: MR. JEFF STRIBLING   FILE does not ignore the MR.

```
Date:                          Time:
To: ..Stribling

M:
Of:
Phone:

Message:



                               Operator:
_____

File: MESSAGE        RETRIEVE SPEC          Page 1
F5-Date              F6-Time                F10-Continue
```

..Stribling means ignore all characters before Stribling.

These items will match:

TO: MR. STRIBLING   FILE does not care that
                             the item is in upper case

TO: J. STRIBLING   or

TO: SARA STRIBLING   FILE ignores everything
                             preceding STRIBLING.

This item will not match:

TO: JEFF STRIBLING JR.   FILE does not ignore the
                             JR.

```
┌─────────────────────────────────────────────┐
│                                             │
│  Date:                          Time:       │
│  To: ..Stribling..                          │
│                                             │
│  M:                                         │
│  Of:                                        │
│  Phone:                                     │
│                                             │
│                                             │
│  Message:                                   │
│                                             │
│                                             │
│                                 Operator:   │
│  _____│
│                                             │
│  File: MESSAGE        RETRIEVE SPEC   Page 1│
│  F5-Date              F6-Time    F10-Continue│
│                                             │
└─────────────────────────────────────────────┘
```

..Stribling.. means ignore all characters before and after Stribling. These items will match:

TO: Mr. Jeff Stribling Jr.

TO: Jeffrey Stribling

TO: Tom Stribling, Jr.

You can use the partial item search to retrieve forms that have a word somewhere in a multiple word item. For instance, assume you want to find all phone messages that pertain to the European trip you are about to take. The retrieve specification would look like this:

```
┌─────────────────────────────────────────────────┐
│                                                 │
│  Date:                        Time:             │
│  To:                                            │
│                                                 │
│  M:                                             │
│  Of:                                            │
│  Phone:                                         │
│                                                 │
│  Message: ..Europe..                            │
│                                                 │
│                               Operator:         │
│  _____  │
│                                                 │
│  File: MESSAGE         RETRIEVE SPEC    Page 1   │
│  F5-Date               F6-Time       F10-Continue│
│                                                 │
└─────────────────────────────────────────────────┘
```

The following message would match:

Message: Travel reservation for trip to Europe
confirmed.

Message: European sales rep will meet you at the
airport.

Another way to get partial matching is to use the
"at-sign" (@). It will match any character in the @
position in the item. You can search for all items that
match the retrieve specification, with any single
character accepted in the @ position. For example, the
retrieve specification @ORN will match BORN and
CORN. It will not match PORK (ORK does not match
ORN).

Suppose the second digit of a part number indicates its color and you want to retrieve all records of a certain part regardless of its color:

PART NUMBER: 3@711 will retrieve all records of the part.

Note that if you use @ as a character in an item, you will not be able to search for that item, since FILE will find a match for forms with any character entered in that position.

3. Numeric item match

There are two ways to use numbers as information. One way is to use the number as a set of characters that identify an item (PHONE #: (123) 456-7890, PART NUMBER: 14307, SOC SEC #: 123-45-6789). In this case, the number has no numeric value — one number is not typically thought of as larger or smaller than any other.

The other way is to use the number to represent a numeric value — something that has a meaning of larger or smaller associated with it (QUANTITY: 36, COST: $15.95, AGE: 47).

When the item is a number that represents a numeric value, you can look for all items less than, greater than, or equal to a given number. The retrieve specification consists of one of the special symbols ($<$, $>$, $=$) followed by the desired number. In determining the value of a number, FILE uses the following rules:

- FILE ignores all characters other than $-$, .,0,1,2,3, 4,5,6,7,8,9. (Do not use a lower case L for 1, nor the letter O for zero.)

- A minus sign (–) appearing before the first digit of after the last makes the value negative. FILE ignores multiple minus signs.

- If FILE encounters multiple decimal points (.), it ignores all but the first.

Note that you should not use <, >, or = as the first character in any item — if you try to search for it, FILE will do a numeric search rather than a character match.

Examples of numeric values:

Item	Value	
$1,706.22	1706.22	$ and , are ignored.
13 MAY 1980	131980	MAY is ignored.
70-06-29	700629	to be negative, a minus sign must appear before the first digit or after the last. This is a convenient way for numerically representing dates.
20:45	2045	: is ignored. This is a convenient way for numerically representing time.
FIVE	0	letters are ignored. No digits are found, the value is zero.

Therefore, if you want to search through your message file for all messages from the phone number (123) 456-7890, you should not use the numeric item match. This is a case where, although the item is a number, it does not have a numeric value. You should use either the full or partial item match to look for this item.

On the other hand, assuming you used the 24-hour representation for time, you could find all messages received in the morning. The retrieve specification looks like this:

```
Date:                              Time: <12:00
To:

M:
Of:
Phone:

Message:


                              Operator:


_____

File: MESSAGE          RETRIEVE SPEC          Page 1
F5-Date                F6-Time              F10-Continue
```

FILE ignores the : when determining the value, and finds all time values less than 1200.

4. Numeric Range Search

You can also search the file for forms containing a number that falls into a particular range. To do this, the retrieve specification should look like this example:

= 6..9

This means find all values between 6 and 9 inclusive. The dot-dot (with the equals sign) means through. For example, to find all parts costing between $1.50 and $3.00:

PART COST: = $1.5..$3   you can put spaces anywhere except between the dots.

4-12

To find all employees hired between March 3, 1979 and June 12, 1980:

HIRE DATE: = 79/03/03..80/06/12

Note that FILE ignores non-numeric characters in numbers.

5. The "Not" Match

You can precede any of the foregoing retrieve specifications with a slash (/) character. Using this character means "not" and reverses the sense of the retrieve specification. For example,

/ = 3.1	Finds all those values which are not equal to 3.1
/JOHN	Finds all those items that are not "JOHN"
/B..	Finds all those items that do not begin with "B"
/..ER	Finds all those items that do not end with "ER"
/ = 31..100	Finds all those items less than 31 or greater than 100
/..	Finds all forms with no information entered for this item.

Starting the Search

After you have entered all retrieve specifications, you are ready to have FILE search through the file. (Remember, entering a retrieve specification in the first item in your form gives you the fastest retrieval.) Do this by pressing ⌈F10⌋ and FILE will look for the forms you requested.

The search starts with the most recent form added. While FILE is searching, the screen is blank except for the message area at the bottom. You can watch the form numbers change as FILE checks each form in the file.

As FILE finds each form, it displays the form on the screen. You can review it, make changes to it, print it, or remove it from the file. When you finish with the form on the screen, press ⌈F10⌋ to call up the next one that meets the retrieve specifications.

Reviewing the Form

You can browse through the form, using ⌈PgDn⌋ and ⌈PgUp⌋ if you have multiple pages, to recall whatever information you want to see (an asterisk in the message area of the screen tells you there are multiple pages). When you have finished, press ⌈F10⌋ and FILE will continue its search.

Updating the Form

You can make any changes to the information stored in the form. Simply move the cursor to the item you want to change and enter the new information. When you have finished, press ⌈F10⌋ . FILE will store the updated form on the diskette and continue its search.

Removing the Form

You can remove the currently displayed form (all pages) from the file by pressing [F3]. Before FILE removes the form, the following screen appears:

CURRENT FORM ABOUT TO BE REMOVED

Press SPACE to keep the form

Press F10 to remove the form
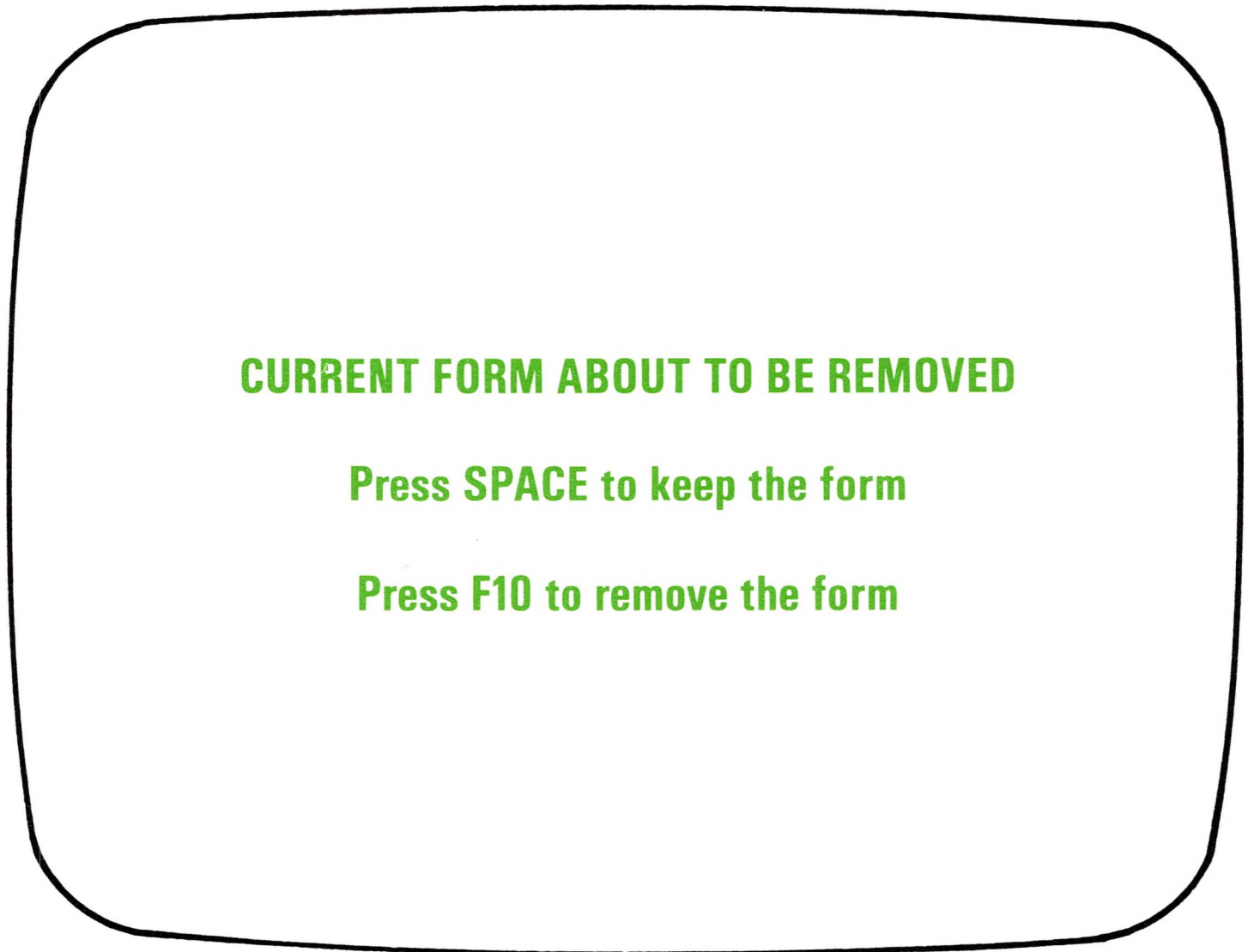
If you decide you do not want to remove this form (you might have pressed [F3] by mistake), press the space bar. Otherwise press [F10]. FILE will then remove the form and continue its search. (Chapter 6 discusses other FILE removal capabilities.)

Printing the Form

You can output this form (all pages) to the printer by pressing `F2` . FILE will print the form just as it appears on the screen. (Chapter 5 discusses other FILE printing capabilities.) After you press `F2` , you will see the following screen:

```
              PRINT OPTIONS



        PRINT ITEM NAMES (Y/N): Y

        PRINT TO: LPT1:


        LINES PER PAGE: 66

        NUMBER OF COPIES: 1



                                        F10-Continue
```

This screen always appears whenever FILE is about to start printing. It allows you to control the output. Type in the desired value for each option, or press `F10` to print your form using the default responses shown on the screen.

Print Item Names (Y/N): Enter Y to print the item names; N to print the information without item names.

Print To: This is the standard DOS name of the device to which the output is sent. Choose from:

- **LPT1:** for the IBM 80 CPS Matrix Printer or another parallel printer

- **AUX: or COM1:** for a serial printer

- A diskette file name, including the drive name if the diskette containing the file is not in the default drive.

Lines Per Page: This specifies how many lines there are on each printed page. With a setting of 66 lines per page, each form of data is printed on one printer page using standard 8½ x 11 paper. A setting of 33 gives you two forms per standard 66-line page of printer paper.
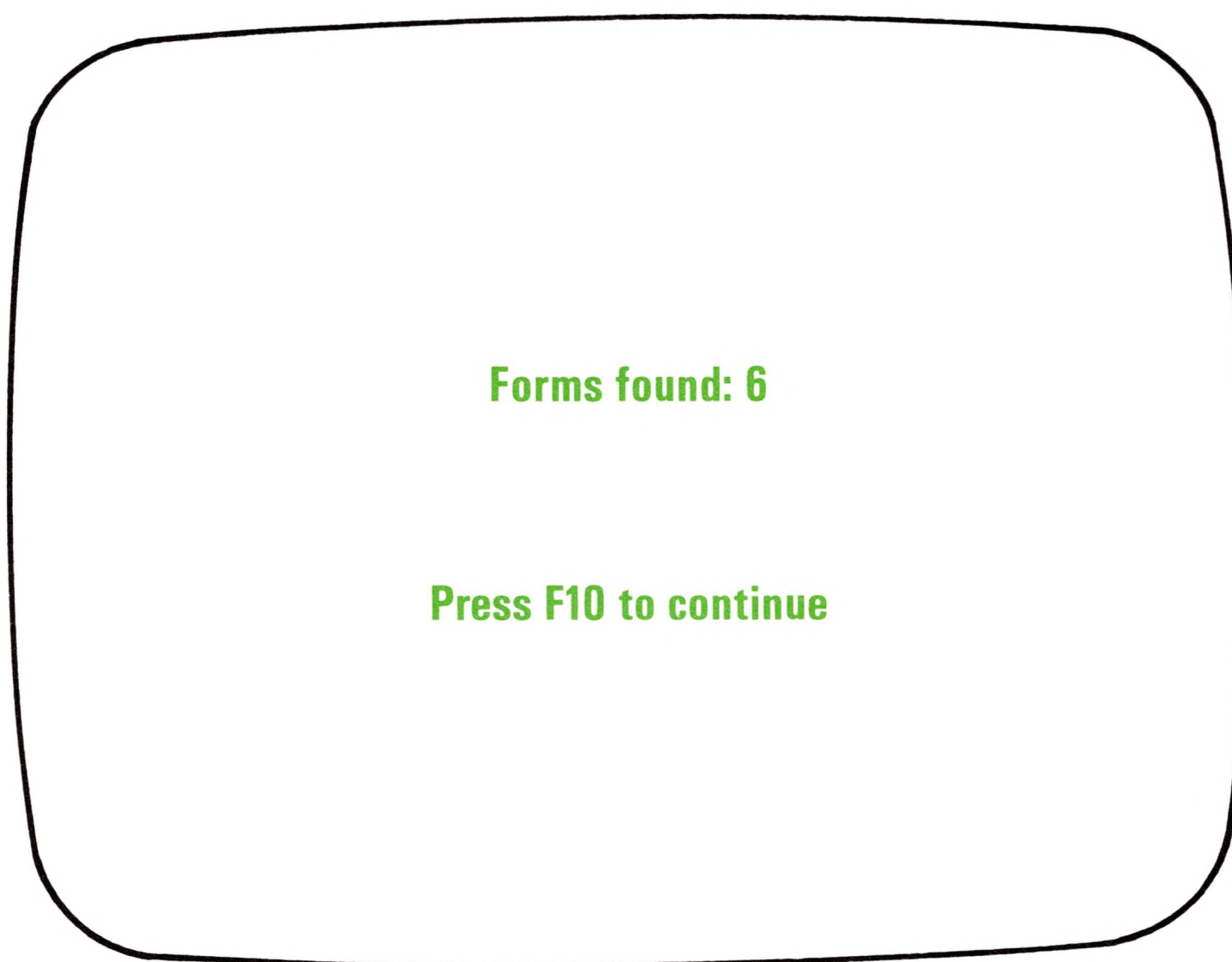
Number of Copies: This specifies how many copies of each form will be printed.

If you change the value of any option, that value is stored as the new default response for that option.

When the Search is Completed

After you have reviewed the last form, the following message appears, indicating how many forms were found during this search:

Forms found: 6

Press F10 to continue

Press F10 to return to the Main Menu. FILE is now ready to accept another function selection.

If at any time you want to end the SEARCH function, press Esc to return to the Main Menu. If you were in the process of updating a form and you pressed PgDn, PgUp, or F10, the changes will actually be written on the diskette whenever the page disappears from the screen.

Warning

If you made changes to the form but pressed Esc before that page disappeared, those updates will not be written on the diskette.

Example

In this example, you will search through the STAFF file for anyone in sales earning more than $1850. If you do not have the STAFF file available, refer to Chapters 1 and 2 to create it and add the sample information before continuing.

To begin, return to the Main Menu (press [Esc] or start the program if necessary). Place the data diskette that contains the STAFF file in drive A if it is not already there. Then type:

4

to select the SEARCH function. Press the Tab [⇄] key to move to the FILE NAME item, and type:

STAFF

if it is not already entered for that item. The screen should look like this:

PFS:FILE FUNCTION MENU

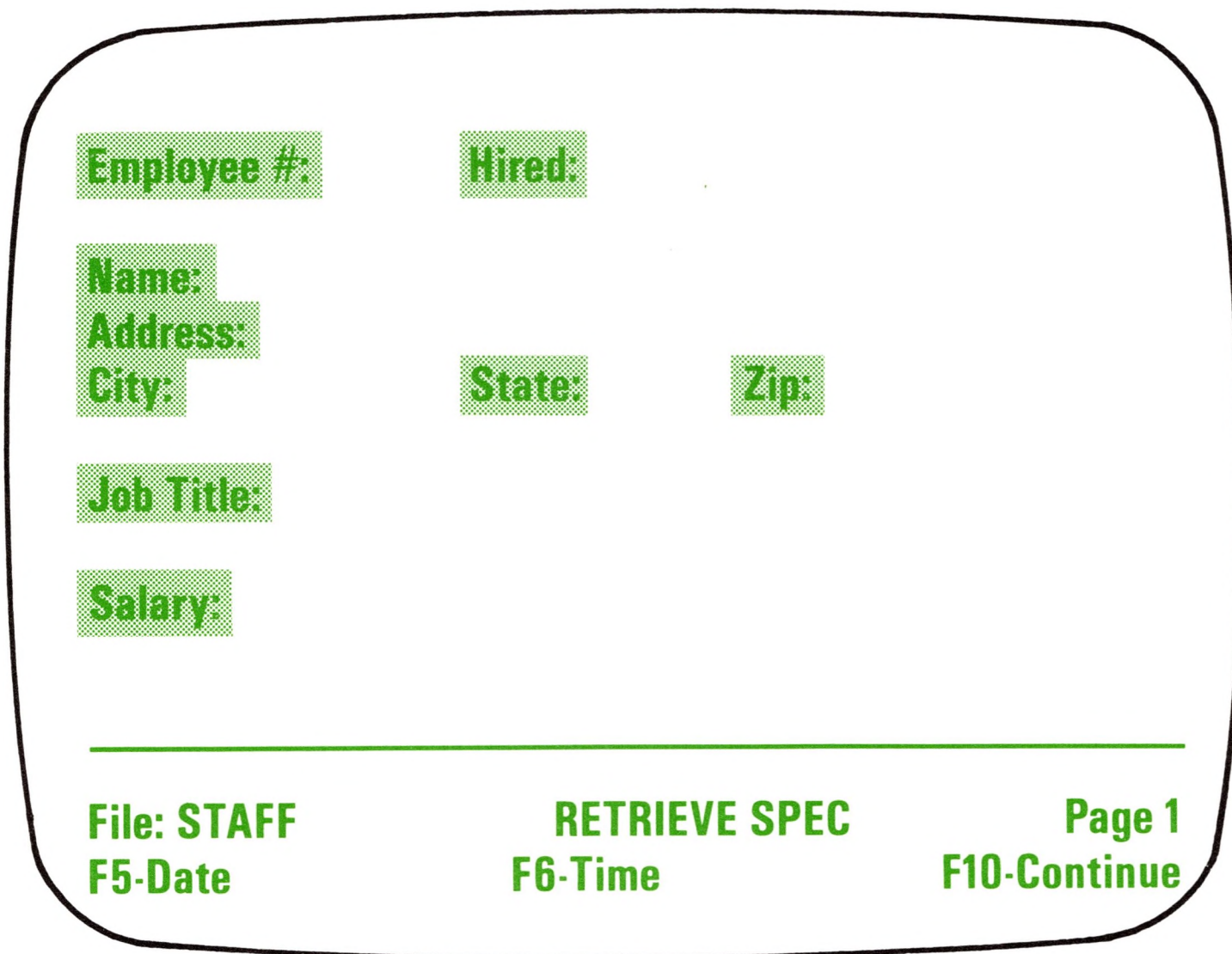|			
1	DESIGN FILE	5	PRINT
2	ADD	6	REMOVE
3	COPY	7	EXIT PFS:FILE
4	SEARCH/UPDATE		

SELECTION NUMBER: 4

FILE NAME: STAFF

F10-Continue

Now press ⌨F10 and FILE will begin the SEARCH function. You should see the STAFF blank form appear on the screen:

```
┌─────────────────────────────────────────────────┐
│                                                   │
│   Employee #:        Hired:                       │
│                                                   │
│   Name:                                           │
│   Address:                                        │
│   City:            State:        Zip:             │
│                                                   │
│   Job Title:                                      │
│                                                   │
│   Salary:                                         │
│                                                   │
│  ───────────────────────────────────────────     │
│                                                   │
│   File: STAFF         RETRIEVE SPEC      Page 1   │
│   F5-Date             F6-Time         F10-Continue │
└─────────────────────────────────────────────────┘
```

You are ready to enter the retrieve specifications. There are two items you are interested in — JOB TITLE and SALARY. Press the Tab ⌨ key seven times to move the cursor to the JOB TITLE item. Type:

Sales..

here. Since you are interested in anyone in sales, use the .. symbol to ignore any characters after the word Sales. Press the Tab ⌨ key to move the cursor to the SALARY item. Then type:

>$1850

to indicate that you want all salaries greater than $1850. (FILE ignores the dollar sign when comparing numeric values.) When you have finished entering the retrieve specifications, the screen should look like this:

4-20

```
Employee #:            Hired:

Name:
Address:
City:              State:        Zip:

Job Title: Sales..

Salary: > $1850


_____

File: STAFF          RETRIEVE SPEC          Page 1
F5-Date                  F6-Time            F10-Continue
```

Press [F10] and FILE will begin searching for the desired forms. When it finds the first form, it displays it on the screen:

```
Employee #: 13029        Hired: 80/02/01

Name: Mike Cooper
Address: 907 Sunset Court
City: Portland           State: OR      Zip: 97208

Job Title: Salesperson-West

Salary: $1900



_____

File: STAFF              FORM 3              Page 1
F2-Print Form F3-Remove Form F5-Date F6-Time F10-Continue
```

Assume there is an error in the date that this person was hired. It should be FEB 7, not FEB 1. You can update it here. Press the Tab ⌨ key to move the cursor to the HIRED item. Press Cursor Right 6 seven times to move the cursor over to the 1 without destroying any of the existing characters. Then type:

7

to change the date. Now press F10 and FILE will store this updated form on the STAFF file and continue its search. It finds the next form and displays it:

```
Employee #: 16445          Hired: 80/08/12

Name: Jennifer Young
Address: 2421 Broadway
City: Boston               State: MA        Zip: 02109

Job Title: Salesperson-East

Salary: $1950


_____

File: STAFF                  FORM 2              Page 1 *
F2-Print Form F3-Remove Form F5-Date F6-Time F10-Continue
```

The asterisk (*) beside the page number indicates there are more pages in this form. To see the second page, press [PgDn]

FILE displays the second page of this form. The screen looks like this:

```
ATTACHMENT: Has had two years of European experience




 _____

 File: STAFF              FORM 2              Page 2
 F2-Print Form F3-Remove Form F5-Date F6-Time F10-Continue
```

Press ⌨F10 and FILE will continue its search. Now the screen looks like this:

Forms found: 2

Press F10 to continue

Now press ⌨F10 to return to the Main Menu:

PFS:FILE FUNCTION MENU

1 DESIGN FILE   5 PRINT

2 ADD   6 REMOVE

3 COPY   7 EXIT PFS:FILE

4 SEARCH/UPDATE

SELECTION NUMBER:

FILE NAME: STAFF

F10-Continue

4-24

Summary

- Use the SEARCH/UPDATE function to search through your file and display and update all forms that you are interested in.

- Indicate what information you want to find by filling in the blank form with retrieve specifications:

characters	full item match
..characters	partial item match — ignore beginning
characters..	partial item match — ignore end
..characters..	partial item match — ignore both
..	partial item match — ignore all
@characters	ignore single character
<number	numeric item match — less than number
>number	numeric item match — greater than number
=number	numeric item match — equal to number
=number1..number2	numeric item match — between number 1 and number 2

/   (preceding any of the
                              above specifications)
                              the opposite of the
                              retrieve specification

/..   search for a form with
                              no information entered
                              for this item

- If you do not enter any retrieve specifications, FILE will display every form in the file.

- For fastest possible retrieval (a few seconds), use a full item match in the first item of your form.

- FILE can search for forms based on any combination of items on any page of the form.

- [F2] prints the currently displayed form

- [F3] removes the currently displayed form from your file.

Chapter 5. Print

Contents

Notes

Chapter 5. Print

This chapter tells how to use the PRINT function to produce a paper copy of the information stored in your data file. With PRINT, you can print selected forms or portions of forms according to a format that you specify, in sorted order if you wish. The example at the end of the chapter shows you how to generate mailing labels from the STAFF file created in earlier chapters.

When you use the PRINT function, you first indicate which forms you are interested in, then which items of the form you want, and finally how you want to print them. FILE then searches through the file, automatically printing all the appropriate information.

If you want to see each form on the screen before it is printed, you should use the SEARCH/UPDATE function with the F2 option (See "Printing the Form" in Chapter 4 for details).

Selecting the PRINT Function

Select PRINT by returning to the Main Menu and entering 5 in the SELECTION NUMBER item. In FILE NAME, enter the name of the file that contains the forms you want to print. Make sure that the diskette containing the file is in one of the drives.

Pressing F10 causes the blank form from the file to appear for you to indicate which forms you want to print.

Choosing Which Forms to Print

You indicate which forms to print by filling in the blank form with the desired retrieve specifications. ("Entering the Retrieve Specifications" in Chapter 4 describes the retrieve specifications.) When the retrieve specifications are complete, pressing F10 will display the Print Options for you to fill in:

PRINT OPTIONS

PRINT ITEM NAMES (Y/N): Y

PRINT TO: LPT1:

LINES PER PAGE: 66

NUMBER OF COPIES: 1

F10-Continue

Filling in the Print Options

This screen appears whenever FILE is about to start printing something. It allows you to control the output. Type in the desired value for each option, or press ⌜F10⌝ to print your form using the default responses shown on the screen.

Print Item Names (Y/N):

Enter Y to print the item names; N to print the information without item names.

Print To:

This is the standard DOS name of the device to which the output is sent. Choose from:

- **LPT1:** for the IBM 80 CPS Matrix Printer or another parallel printer

- **AUX: or COM1:** for a serial printer

- a diskette file name, including the drive name if the diskette is not in the default drive. This creates a DOS text file containing the output information.

Lines Per Page: This specifies how many lines there are on each printed page. With a setting of 66 lines per page, FILE prints each form on one page (using standard 8½ x 11 printer paper). A setting of 33 gives you two forms per standard 66-line page of printer paper.

Number of Copies: This specifies how many copies FILE will print of each form.

If you change the value of any of these options, FILE stores the values you enter as the new default responses. When all of the options contain the desired information, press ⌐F10⌐ and the blank form will appear again, ready for you to enter the print specifications.

Entering the Print Specifications

You specify which items to print, and how you want to arrange them, by filling in the blank form with special information called print specifications. For each item you want to print, enter one of these two characters after the item name:

X   print this item, then advance the printer to the next line.

+   print this item, but do not advance the printer to the next line after printing it — skip 2 spaces instead. (This allows you to print more than one item per line.

In addition, you can print the forms in a particular order by entering the following character in one of the items:

S   sort the printout based on this item. Using the first ten characters in this item, FILE sorts the printout into ascending order. For example, by placing an S in the CITY item, FILE will print the forms in alphabetical order by city. An S does not automatically cause FILE to print that item; you must use an X or + with the S in order to print the item as well as use it for sorting.

FILE prints the items in the order in which they appear on the screen. If you do not enter any print specifications, it prints the entire form just as it appears on the screen, using the default print options. When you have entered all print specifications, press F10 and FILE will print all the information you requested.

When the Last Form Has Been Printed

After FILE has printed the last form, the following message appears to indicate how many forms were printed:

Forms printed: 6

Press F10 to continue
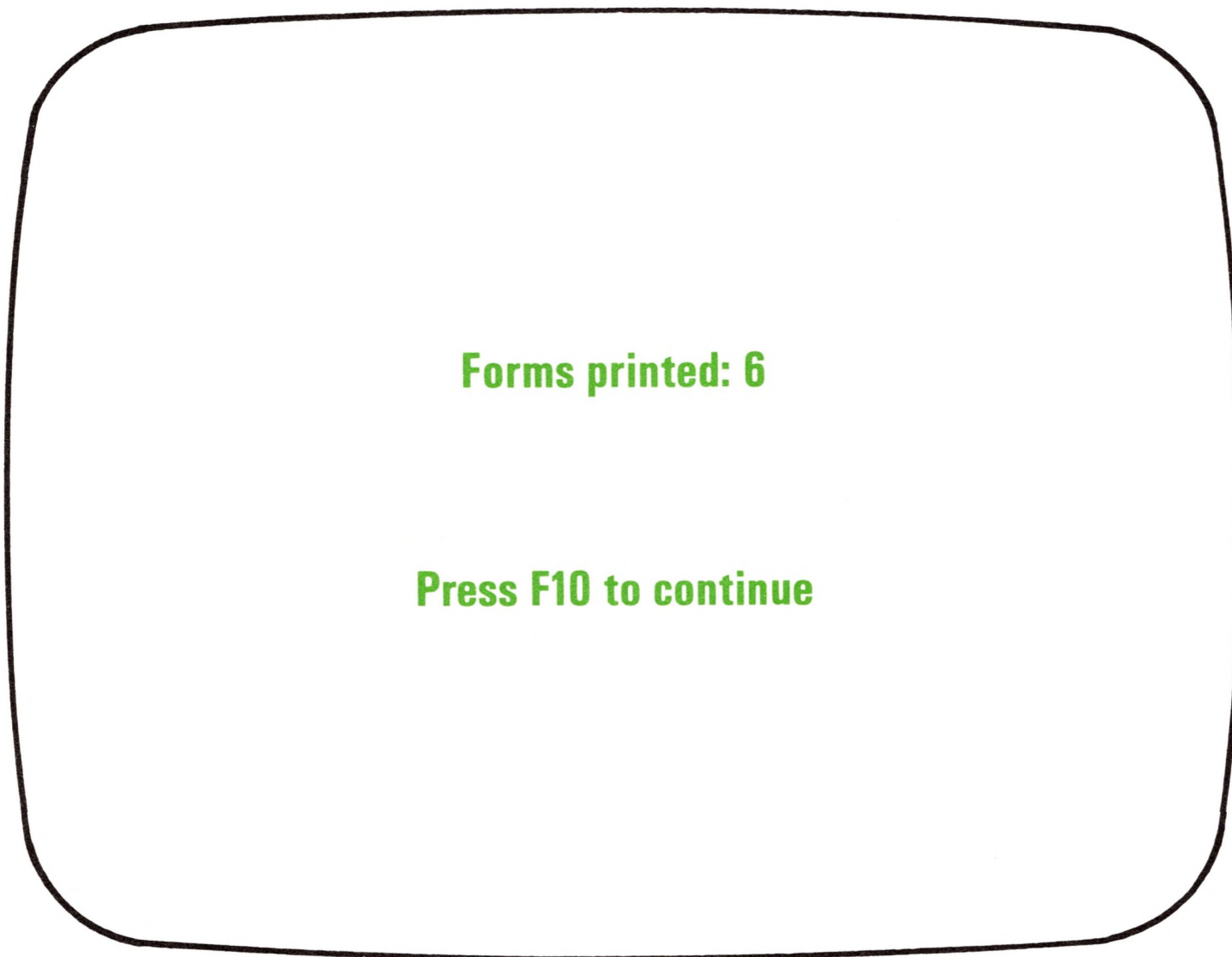
Press F10 to return to the Main Menu. FILE Is now ready to accept another function selection.

Cancelling the PRINT Function

If at any time you want to end the PRINT function, press Esc and you will return to the Main Menu. If you press Esc while FILE is in the middle of printing a form, it will finish printing that form before returning to the Main Menu.

Example

In this example, you will set up and print mailing labels for the six employees in the STAFF file. If you do not have that file available, refer to the examples in Chapters 1 and 2 to create it and add the needed information. Even if you do not have mailing labels for your printer, you should follow along with the example so that you understand the procedure — just print the "labels" on regular printer paper.

To begin, make sure the Main Menu is displayed (press ⎡Esc⎤ or start the program if necessary). Then press:

5

to select the PRINT function. Press the Tab ⎡⇥⎤ key to move to the FILE NAME item, and type:

STAFF

if it is not already entered for that item. Place the diskette that contains the STAFF file in drive A. The screen should look like this:

<u>**PFS:FILE FUNCTION MENU**</u>

1	**DESIGN FILE**	**5**	**PRINT**
2	**ADD**	**6**	**REMOVE**
3	**COPY**	**7**	**EXIT PFS:FILE**
4	**SEARCH/UPDATE**		

SELECTION NUMBER: 5

FILE NAME: STAFF

F10-Continue

Press [F10] to continue, and the blank form for the STAFF file will appear, ready for you to enter the retrieve specifications:

```
┌─────────────────────────────────────────────────┐
│                                                 │
│   Employee #:        Hired:                     │
│                                                 │
│   Name:                                         │
│   Address:                                      │
│   City:              State:        Zip:         │
│                                                 │
│   Job Title:                                    │
│                                                 │
│   Salary:                                       │
│                                                 │
│  ───────────────────────────────────────────── │
│                                                 │
│   File: STAFF         RETRIEVE SPEC      Page 1 │
│   F5-Date             F6-Time        F10-Continue│
└─────────────────────────────────────────────────┘
```

Since you want all employees in the file, leave the form blank and press [F10] again. The next step is to fill in the Print Options. (The options show the current default responses.)
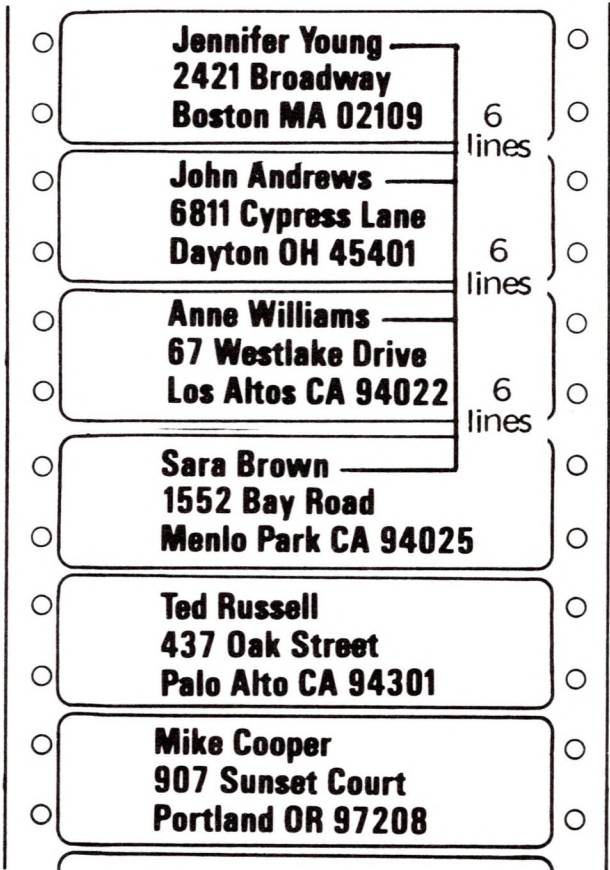
To select the desired print options, type:

N

to indicate that you do not want to print the item names. Press the Tab [↹] key to move the cursor to the PRINT TO item. If you are printing to the IBM 80 CPS Matrix Printer, leave LPT1: for that item. Otherwise enter the name of your printer. Press the Tab [↹] key again to move to LINES PER PAGE.

At this point, you need to determine the spacing between the mailing labels and make sure the labels are properly inserted in the printer. (If you have questions about loading paper or mailing labels, refer to the printer manual or see your dealer.) To determine the proper spacing, count the number of lines between the top of one mailing label and the top of the next. This is the number you want to enter in the LINES PER PAGE item.

Mailing Labels

Jennifer Young
2421 Broadway
Boston MA 02109   6 lines

John Andrews
6811 Cypress Lane
Dayton OH 45401   6 lines

Anne Williams
67 Westlake Drive
Los Altos CA 94022   6 lines

Sara Brown
1552 Bay Road
Menlo Park CA 94025

Ted Russell
437 Oak Street
Palo Alto CA 94301

Mike Cooper
907 Sunset Court
Portland OR 97208

For the mailing labels in this example, there are 6 lines from the start of one label to the start of the next.

Type:

6

and a space to write over the default response of 66. This indicates that the spacing between the top of one mailing label and the top of the next is 6 lines. Leave NUMBER OF COPIES as is, unless you want to print more than one copy.

Your Print Options screen should look like this:

PRINT OPTIONS

PRINT ITEM NAMES (Y/N): N

PRINT TO: LPT1:

LINES PER PAGE: 6

NUMBER OF COPIES: 1

F10-Continue

Press F10 and FILE will display the blank form for you to indicate which items you want to print.

Employee #:   Hired:

Name:
Address:
City: State   Zip:

Job Title:

Salary:

File: STAFF   PRINT SPEC   Page 1
F5-Date   F6-Time   F10-Continue

This time you want to select just the NAME, ADDRESS, CITY, STATE, and ZIP items for printing. Use the Tab 🔄 key to move the cursor from item to item, and fill in the following information:

```
Employee #:            Hired:


Name: X
Address: X
City: +                State: +      Zip: SX


Job Title:


Salary:
_____

File: STAFF              PRINT SPEC              Page 1
F5-Date                   F6-Time          F10-Continue
```

Note that the + in CITY and STATE causes the item to print, but does not move the printer to the next line. The SX in ZIP causes the FILE to print the forms in numerical order based on the data in that item.

Press F10 and FILE will print all the desired mailing labels. The mailing labels for the STAFF file look like this:

Mailing Labels

```
○|  Jennifer Young      |○
   2421 Broadway
○|  Boston MA 02109     |○

○|  John Andrews        |○
   6811 Cypress Lane
○|  Dayton OH 45401     |○

○|  Anne Williams       |○
   67 Westlake Drive
○|  Los Altos CA 94022  |○

○|  Sara Brown          |○
   1552 Bay Road
○|  Menlo Park CA 94025 |○

○|  Ted Russell         |○
   437 Oak Street
○|  Palo Alto CA 94301  |○

○|  Mike Cooper         |○
   907 Sunset Court
○|  Portland OR 97208   |○
```

When print is complete, the screen looks like this:

Forms printed: 6

Press F10 to continue

Now press F10 to return to the Main Menu.

Printer Note

Some printers require that you send a special character sequence to set the printer up before printing starts. For example, sending a Ctrl O to the IBM 80 CPS Matrix Printer causes it to print in 132-character compressed mode. Also, if you have a serial printer connected with an Asynchronous Communications Adapter, you will need to provide some special information, such as baud rate. See Appendix D, "The *pfs*:FILE Setup Programs," for instructions on setting up your printer.

Summary

- Use the PRINT function to copy some or all of your information to a printer.

- Format the output by indicating whether or not you want to print item names, where you want to print the information, the number of lines you want to print on a page, and the number of copies of each form.

- Mark which items you want to print by filling out the blank form with print specifications:

  X   print this item and advance the printer to the next line.

  +   print this item but do not advance the printer to the next line — skip 2 spaces instead.

  S   sort printout based on this item.

- If you do not enter any print specifications, FILE prints the items just as they appear on the screen.

Notes

Chapter 6.   Remove

Contents

Notes

Chapter 6.   Remove

This chapter explains how to delete forms you no longer need from your data file. Using the REMOVE function, you specify which forms you no longer want, then FILE searches through the file, removing all appropriate forms. (If you want to see each form on the screen before it is removed, use the SEARCH/UPDATE function with the F3 option. "Removing the Form" in Chapter 4 contains details on this option.) There is an example at the end of the chapter that shows you how to remove certain forms from the STAFF file.

Selecting the REMOVE Function

Select REMOVE by returning to the Main Menu and entering 6 in the SELECTION NUMBER item. In FILE NAME, enter the name of the file from which you want to remove forms. Make sure that the diskette containing the file is in one of the drives. Then press F10 to display the blank form from the file you requested on the screen.

Choosing Which Forms to Remove

To indicate which forms you want to remove from the file, fill in the blank form with the desired retrieve specifications. (Chapter 4 describes retrieve specifications in detail.) When you have entered all retrieve specifications, press F10. Before FILE removes the forms, it displays the following screen, giving you the opportunity to change your mind:

SELECTED FORMS ABOUT TO BE REMOVED

Press ESC to abandon this operation

Press F10 to continue

Confirming the Removal

Removing a form involves erasing information from your file. FILE makes sure you really want to do this before it continues. You have two choices here. If you press [Esc] , the Main Menu will appear. FILE will not remove any forms and will be ready to accept another function selection. If you press [F10] , FILE will remove all forms meeting the retrieve specifications you entered, displaying each form as it removes it.

When the Last Form Has Been Removed

After removing the last form, FILE displays the following message to indicate how many forms it removed:

```

                    Forms removed: 1



                  Press F10 to continue


```

Once FILE removes a form, it never reuses the form number. However, it does reuse the file space occupied by the form. Press [F10] to return to the Main Menu. FILE is now ready to accept another function selection.

Removing All Forms from the File

If you want to remove all forms from your file, leave the retrieve specification blank. Then press [F10]. FILE warns you that it is about to remove all forms, and gives you a chance to change your mind:

```
        W A R N I N G

ALL FORMS ARE ABOUT TO BE REMOVED


Press ESC to abandon this operation

Press F10 to continue
```

To proceed with the removal, press `F1Ø` . FILE
removes all forms, leaving only the blank form design
in the file.

Cancelling the REMOVE Function

If at any time you want to end the REMOVE function,
press `Esc` to return to the Main Menu. Note that if
you press `Esc` while FILE is in the middle of
removing a form, it will finish removing that form
before returning to the Main Menu.

Warning
Do not try to take the diskette out of the drive while it
is spinning. If you do, you will damage your diskette
and be unable to use it again.

Example

In this example, you will remove one form from the STAFF file you created in earlier chapters. If you do not have the file available, refer to Chapters 1 and 2 to create it and add the necessary information before attempting to follow these instructions.

Suppose the Midwest office of the company whose employees are listed in the STAFF file is moving and you want to remove all Ohio employees from the STAFF file. To begin, return to the Main Menu (press $\boxed{\text{Esc}}$ or start the program if necessary). Then press:

6

to select the REMOVE function. Press the Tab $\boxed{\leftarrow\!\!\rightarrow}$ key to move to the FILE NAME item, and type:

STAFF

if it is not already entered for that item. The screen should look like this:

PFS:FILE FUNCTION MENU

1 DESIGN FILE	5 PRINT
2 ADD	6 REMOVE
3 COPY	7 EXIT PFS:FILE
4 SEARCH/UPDATE	

SELECTION NUMBER: 6
FILE NAME: STAFF

F10-Continue

Place the diskette that contains the STAFF file in drive A, and press [F1Ø] to continue. The blank form from the file appears next:

```
Employee #:          Hired:

Name:
Address:
City:                State:          Zip:

Job Title:

Salary:
_____

File: STAFF             RETRIEVE SPEC            Page 1
F5-Date                 F6-Time                  F10-Continue
```

You are ready to enter the retrieve specification in the STATE item. Press the Tab [⇆] key five times to move the cursor to the STATE item. Type:

OH

to identify which employee forms you want to remove. The screen should look like this:

```
Employee #:          Hired:

Name:
Address:
City:                State: OH      Zip:

Job Title:

Salary:
_____

File: STAFF             RETRIEVE SPEC            Page 1
F5-Date                 F6-Time                  F10-Continue
```

Press [F10] and FILE will warn you that it is going to remove forms, and give you a chance to cancel the removal.

SELECTED FORMS ABOUT TO BE REMOVED

Press ESC to abandon this operation

Press F10 to continue

Now press [F10] and FILE will remove all forms with OH in the STATE item. The next screen looks like this:

Forms removed: 1

Press F10 to continue

Press [F10] to return to the Main Menu.

Summary

- Use the REMOVE function to remove any unwanted forms from your information file.

- Indicate which forms you want to remove by filling out the blank form with retrieve specifications. To remove all forms in the file, leave the retrieve specification form blank.

Chapter 7.   Exit *pfs:*FILE

Contents

Exit pfs:FILE

Notes

Chapter 7.   Exit *pfs:*FILE

When you are finished using the FILE program, or when you want to leave FILE to perform DOS commands, you can use the EXIT *pfs:*FILE function to leave the FILE program. Before starting to leave FILE, make sure you have completed the FILE function you were doing. Return to the FILE Main Menu (press `Esc` if necessary).

Selecting EXIT *pfs:*FILE

To select EXIT, insert the FILE program diskette in drive A and enter 7 in the SELECTION NUMBER item. You need not enter a file name in the FILE NAME item. The screen should look like this:

```
           PFS:FILE FUNCTION MENU


   1   DESIGN FILE            5   PRINT

   2   ADD                    6   REMOVE

   3   COPY                   7   EXIT PFS:FILE

   4   SEARCH/UPDATE

                 SELECTION NUMBER: 7

                 FILE NAME:

                                    F10-Continue
```

Press F1Ø and the screen will clear. You are now out of the FILE program and under DOS control. Next, the DOS prompt will appear on the screen:

A>

At this point, you could insert the DOS diskette to perform any DOS commands you wish (see Appendix C for instructions on DOS commands). Or, you could insert *pfs:***REPORT** or another program diskette. Then, simply type in the name of the new program and press the Enter ⏎ key.

Summary

- Use the EXIT *pfs:***FILE** function to exit from FILE and return to DOS.

Chapter 8.   Change Design

Contents

Change Design

Chapter 8. Change Design

This chapter explains how to change the design of your form. With the Change Design option of the DESIGN FILE function, you can edit or rearrange the items on your form, even when your file already contains data. The example at the end of the chapter leads you through changing the design of the STAFF file you created at the beginning of this manual.

Selecting Change Design

To change the design, return to the Main Menu, enter 1 for the SELECTION NUMBER, and the name of the *pfs:* file for FILE NAME. Press [F1Ø] to continue.

Next, the Design File Menu appears. Enter 2 in the SELECTION NUMBER item to select the Change Design option, and press [F1Ø] again. FILE displays the blank form as you originally designed it, with the item names no longer highlighted. You can now type in new items, delete items by typing spaces over them, or move items by removing them from their original locations and typing them into their new locations (you must type the item names exactly as they originally appeared). Use the cursor control keys to move the cursor around the screen.

When you have made all the desired changes and the form design appears exactly as you want it, press [F1Ø]. FILE will store the new form design in the file and return to the Main Menu. If the file contains data, FILE transfers the relevant data from the old design; this can be a lengthy process.

When Your File Already Contains Data

The procedure for changing the design of the form is the same, whether or not there are filled-in forms already stored in the file. However, when changing the design of the form for a file that does contain data, there are several things you need to know:

1. You should make a backup copy of the original file before changing the design of the form. (Before showing the blank form design, FILE warns you to make a backup copy.) This is important in case you change your mind later, or inadvertently damage the file during the process.

2. Put a blank, formatted diskette in drive B for FILE to use as work space. If you want to use a different drive for the work space, see Appendix D, "Setting Up a Serial Printer and the Work Drive."

3. FILE transfers data from the old design to the new design only if the item exists on both designs with exactly the same name. Thus, if the item is NAME on the old design, and NAMES on the new design, it will not transfer the data from that item. (FILE ignores leading and trailing blanks when matching names, and treats more than one blank between words as a single blank.)

4. You can move items to different places on the form, without affecting the data for those items (as long as the names match exactly).

5. The new design can have more or fewer items than the old design. When you delete items from the form design, the data for those items will be permanently lost from the file.

6. It may take a long time to reorganize your files. Depending on the complexity of the file and the amount of data, it can take from 5 minutes to a few hours.

When the Data Doesn't Fit
Into the New Design

When transferring data from the old design to the new, if the characters in the old item do not fit into the space for that item on the new design, FILE stops and the following message appears:

```
                 P R O B L E M

              AN ITEM IS TOO LONG


       Press ESC to abandon this operation

            Press F10 to continue
```
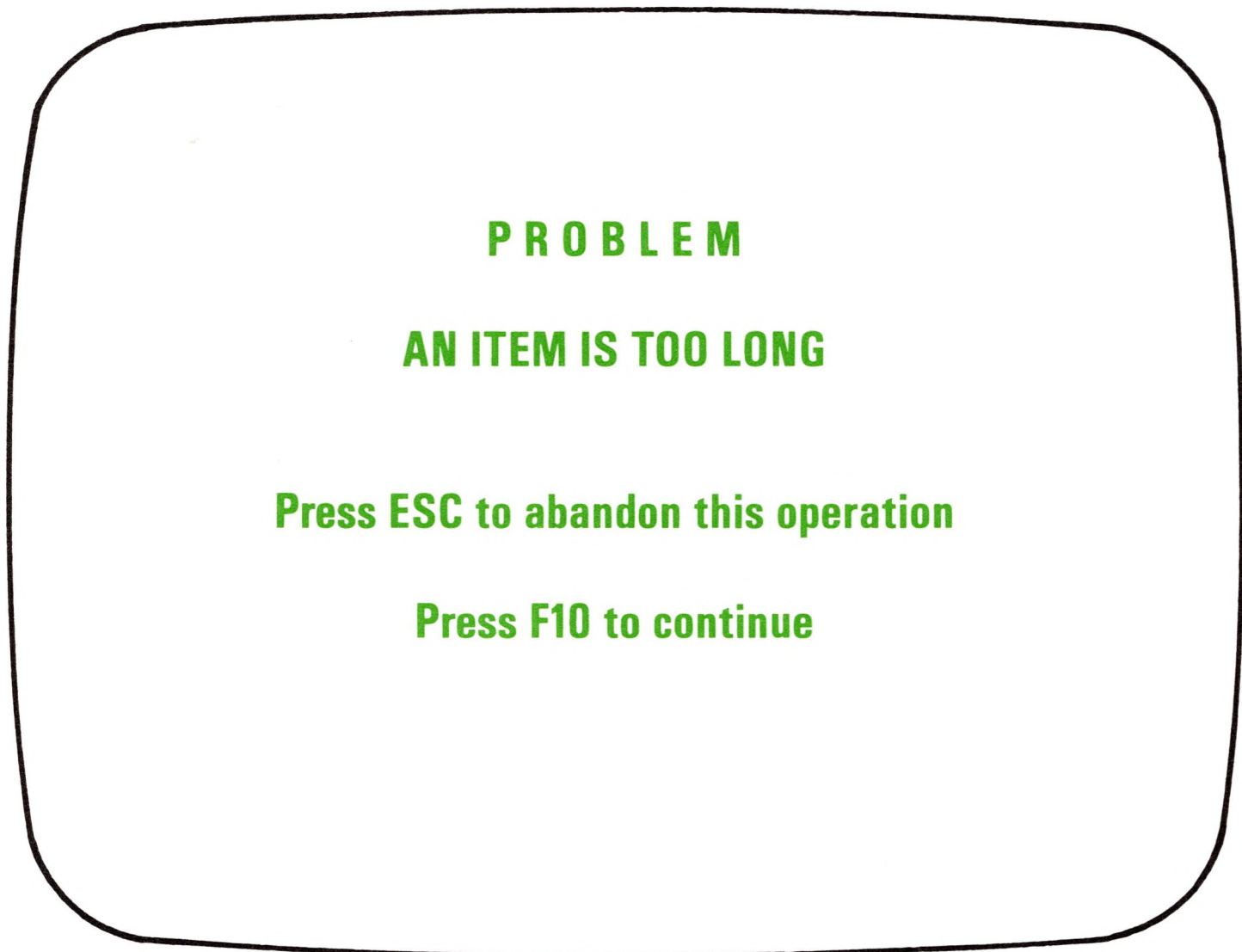
You can cancel the transfer by pressing [Esc], continue by pressing [F1Ø], or delete the form from the file by pressing [F3]. If only one form has an overlong item, it is probably better to shorten it so that it fits (or, if the form is incidental to the new file, delete it). But if a number of the forms in the file have an item that is too long for the new design, you will probably want to cancel the operation and redesign the form to accommodate the data.

If you press $\boxed{\text{Esc}}$, you return to the Main Menu. FILE does not save the new form design, and the file remains in its original state.

If you press $\boxed{\text{F1ø}}$, the form whose item won't fit appears with the cursor located at the first character that does not fit in the new form. You can then edit the data for that item to make it fit, and press $\boxed{\text{F1ø}}$ again to continue.

Changing Forms With Multiple Pages

You can change the design for only three pages of a multiple page form at any one time. Thus, if you want to change five pages, you will have to change three of them first, complete the Change Design function (transferring data if there is data in the file), then repeat the operation for the other two pages.

When transferring data, FILE looks for the item name first on the equivalent page of the new design, then on the other pages consecutively, so the data will be transferred regardless of the page the item appears on. For example, in the redesign shown in the diagram below, the data in ITEM 2 and ITEM 3 will appear on the second page of the new design, while the data in ITEM 4 will appear on the first page. Also, you can rearrange the items.

	OLD DESIGN	**NEW DESIGN**
Page 1	ITEM 1: ITEM 2: ITEM 3:	ITEM 1: ITEM 4:
Page 2	ITEM 4:	ITEM 3: ITEM 2:

Example

By following this example, you will change the STAFF file to include an EXPERIENCE item, and delete the SALARY item. Then, you will add data to the EXPERIENCE item for each form in the STAFF file. Once you add the information, the STAFF file will look like this:

STAFF FILE	
Employee #: 01623	Hired: 76/06/14
Name: Anne Williams	
Address: 67 Westlake Drive	
City: Los Altos State: CA ZIP: 94022	
Job Title: Manager	
Experience: Division Management	

STAFF FILE	
Employee #: 16445	Hired: 80/08/12
Name: Jennifer Young	
Address: 2421 Broadway	
City: Boston State: MA ZIP: 02109	
Job Title: Salesperson-East	
Experience: Product Marketing	

STAFF FILE	
Employee #: 13029	Hired: 80/02/01
Name: Mike Cooper	
Address: 907 Sunset Court	
City: Portland State: OR ZIP 97208	
Job Title: Salesperson-West	
Experience: Division Marketing	

STAFF FILE	
Employee #: 09883	Hired: 76/04/15
Name: Ted Russell	
Address: 437 Oak Street	
City: Palo Alto State: CA Zip: 94301	
Job Title: Engineer	
Experience: Product Development	

STAFF FILE	
Employee #: 07531	Hired: 77/06/29
Name: Sara Brown	
Address: 1552 Bay Road	
City: Menlo Park State: CA Zip: 94025	
Job Title: Secretary	
Experience: None	

Before you begin changing the design of the STAFF file, be sure to make a backup copy of it. Then return to the Main Menu (press [Esc] or start the program if necessary). Enter the number:

1

in SELECTION NUMBER. In FILE NAME, enter the name:

STAFF

and make sure the diskette that contains STAFF is in drive A. Place a blank, formatted diskette in drive B.

Press [F10] to continue.

The Design File Menu appears next. Enter the number:

2

to select the Change Design option. The screen will look like this:

```
                    DESIGN FILE MENU



              1    CREATE FILE

              2    CHANGE DESIGN



              SELECTION NUMBER: 2



                                        F10-Continue
```
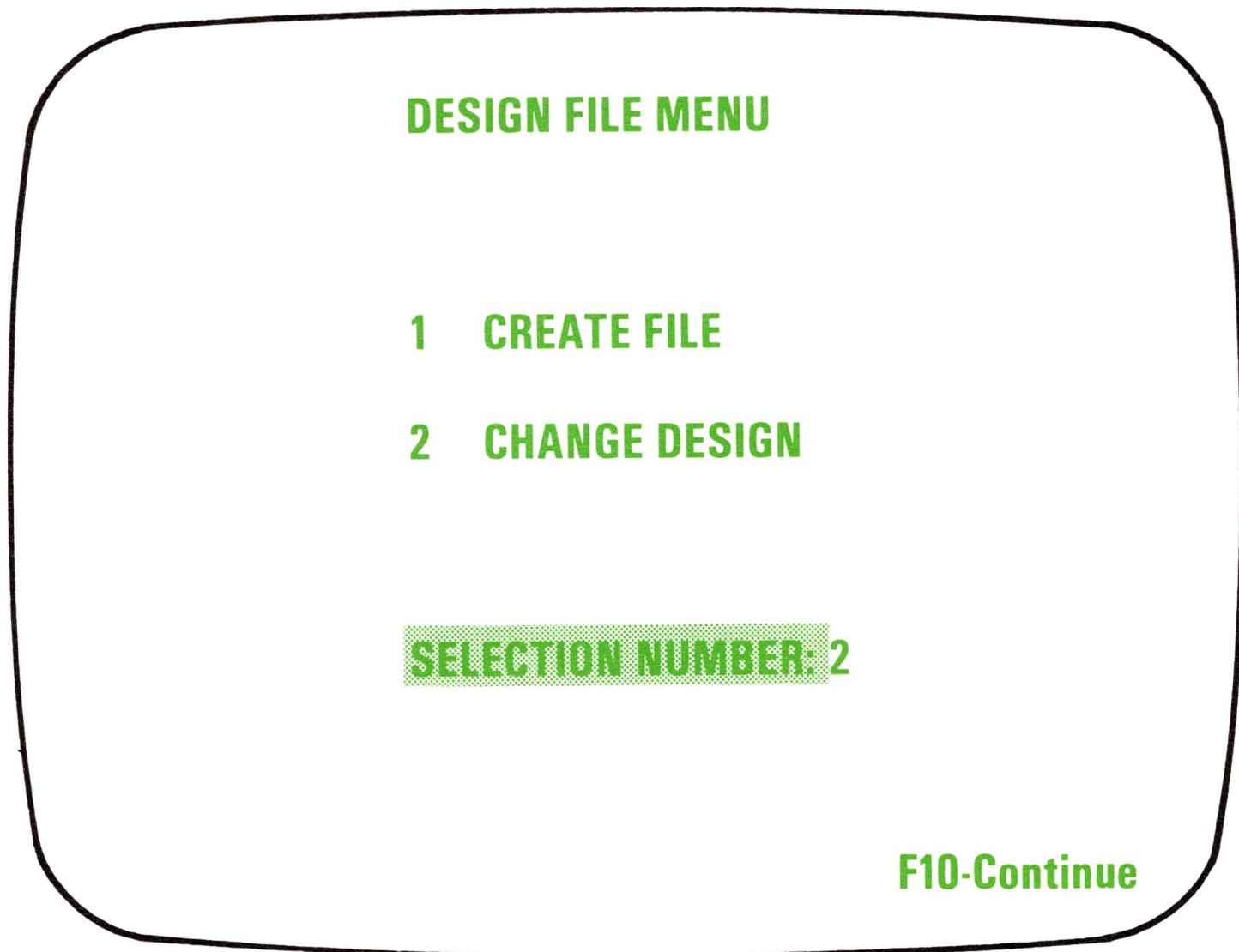
Press F1Ø and the following message is displayed:

```
                      W A R N I N G

          THE CONTENTS OF THE FILE WILL BE CHANGED
                     BY THIS OPERATION

        MAKE A BACKUP OF THE FILE BEFORE CONTINUING


            Press ESC to abandon this operation

                 Press F10 to continue
```
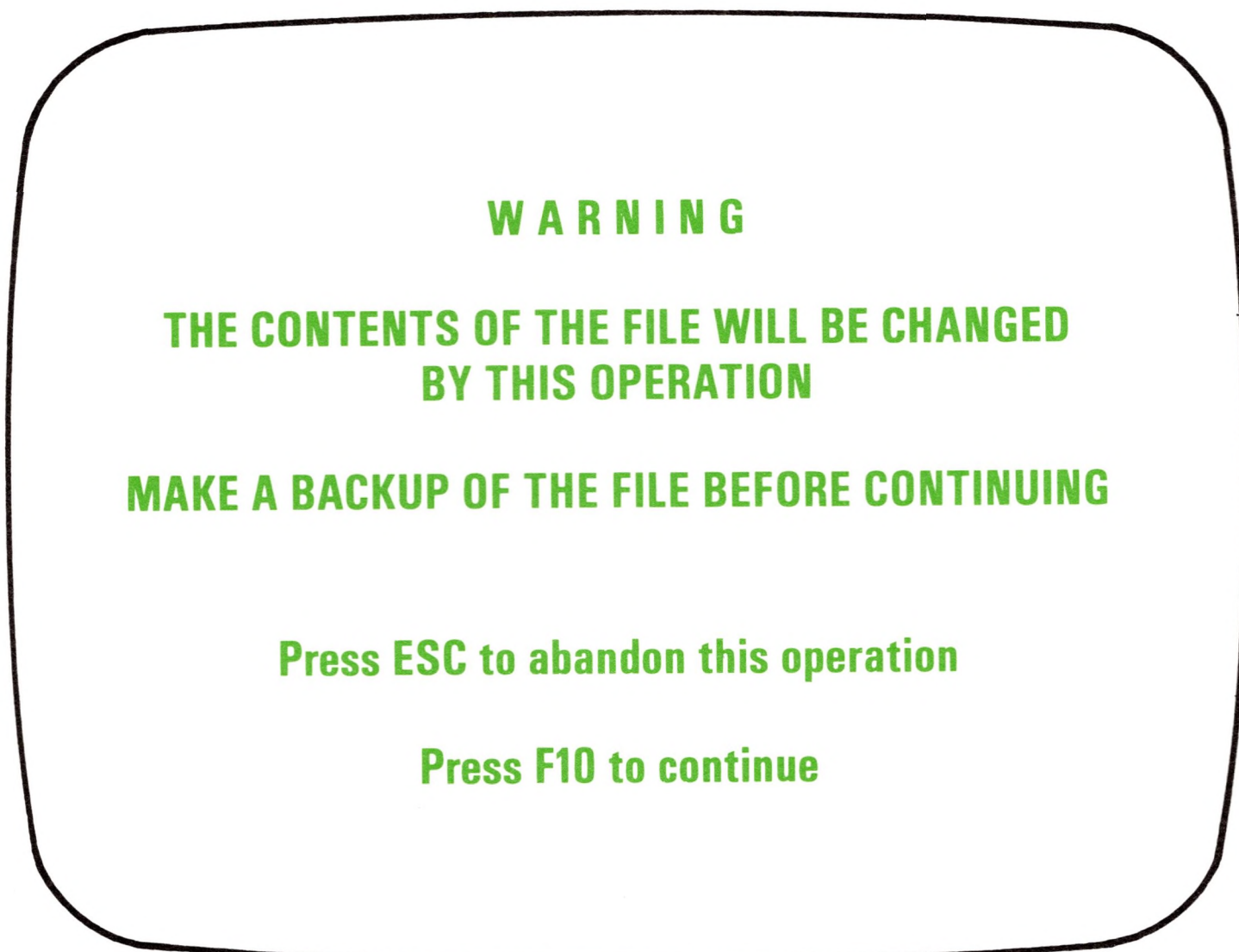
Now press F10 and FILE will display the blank form from the STAFF file for you to edit.

Employee #:   **Hired:**

Name:
Address:
City: **State:**   **Zip:**

Job Title:

Salary:

File: STAFF   **DESIGN**   **Page 1**
F5-Date   **F6-Time**   **F10-Continue**

Notice that the green or white background is not present, indicating that you can type over the items. Press the Enter ↵ key to move the cursor down to the SALARY item. Replace this item with

Experience:

by typing over it. Since you are not making any further changes, press F10 to continue. FILE changes the design on all the forms, briefly showing each form, then stores the changes and returns to the Main Menu.

Now, you are ready to enter the data for the new item. Use the SEARCH/UPDATE function to retrieve, one at a time, the forms in the STAFF file. Return to the Main Menu, and type:

4

in the SELECTION NUMBER item. FILE NAME should already contain the name STAFF. The screen will look like this:

PFS:FILE FUNCTION MENU

1 DESIGN FILE		5 PRINT
2 ADD		6 REMOVE
3 COPY		7 EXIT PFS:FILE
4 SEARCH/UPDATE		

SELECTION NUMBER: 4

FILE NAME: STAFF

F10-Continue

Press [F10] and the newly-designed form will appear for you to enter retrieve specifications.

```
Employee #:            Hired:

Name:
Address:
City:                  State:        Zip:


Job Title:


Experience:



_____

File: STAFF            RETRIEVE SPEC        Page 1
F5-Date                F6-Time          F10-Continue
```

Since you want to add data for the new item to all forms in the file, do not enter any retrieve specifications. Press F10 and FILE will display the last form in the file for you to update.

```
Employee #: 01623      Hired: 76/06/14

Name: Anne Williams
Address: 67 Westlake Drive
City: Los Altos        State: CA      Zip: 94022


Job Title: Manager


Experience:



_____

File: STAFF               FORM 5                Page 1
F2-Print Form F3-Remove Form F5-Date F6-Time F10-Continue
```

Use the Tab ⇥ key to move the cursor to the EXPERIENCE item. Type in:

Division Management

The screen should look like this:

```
Employee #: 01623          Hired: 76/06/14

Name: Anne Williams
Address: 67 Westlake Drive
City: Los Altos          State: CA          Zip: 94022

Job Title: Manager

Experience: Division Management

_____

File: STAFF                FORM 5              Page 1
F2-Print Form F3-Remove Form F5-Date F6-Time F10-Continue
```
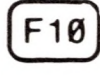
Now press F10 and FILE will store the added data and display the next form in the file. Fill in the EXPERIENCE item for the rest of the forms in the file. When you have updated the last form, press F10 to complete the update function. FILE tells you how many forms it found. Press F10 again and FILE will return to the Main Menu and will be ready to accept another function selection.

Summary

- Use the Change Design option of DESIGN FILE to change the design of the form from any file.

- You can add items to the form, delete items, or move items from one location to another.

- You can change the form design whether the file contains data or is empty.

- If the file contains data, the following guidelines apply:

    1. Item names must match exactly in order for FILE to transfer the data from the old design to the new design.

    2. You can edit data from the old design that does not fit into the new design so that it fits.

    3. Insert a blank, formatted diskette in drive B for FILE to use as temporary work space. To use a drive other than drive B for the work space, refer to Appendix D, "Setting up a Serial Printer and the Work Drive."

    4. Transferring the data can be a lengthy operation depending on the file complexity and the amount of data.

- You can change up to three pages of a multiple page form at one time.

- [Esc] returns to the Main Menu. FILE does not save the new design and the file remains in its original state.

- If your file contains data, be sure to make a backup copy before you change the design.

Change Design

Notes

Appendix A. Messages

FILE displays a message whenever it encounters an error condition. Certain errors are the result of mistakes made when you enter information (filling in the Main Menu items, Print or Copy options, or retrieve specifications). Other errors are the result of physical limitations or problems with certain elements of your computer system. Most of these messages appear in the message area at the bottom of the screen:

PFS:FILE FUNCTION MENU

1 DESIGN FILE   5 PRINT

2 ADD   6 REMOVE

3 COPY   7 EXIT PFS:FILE

4 SEARCH/UPDATE

SELECTION NUMBER: 4

FILE NAME: STAFF

CAN'T FIND FILE

F10-Continue

FILE displays other messages on a separate screen:

```
        P R O B L E M

        DISKETTE FULL


    Press ESC to return to PFS:FILE menu

        (See manual Appendix A)
```
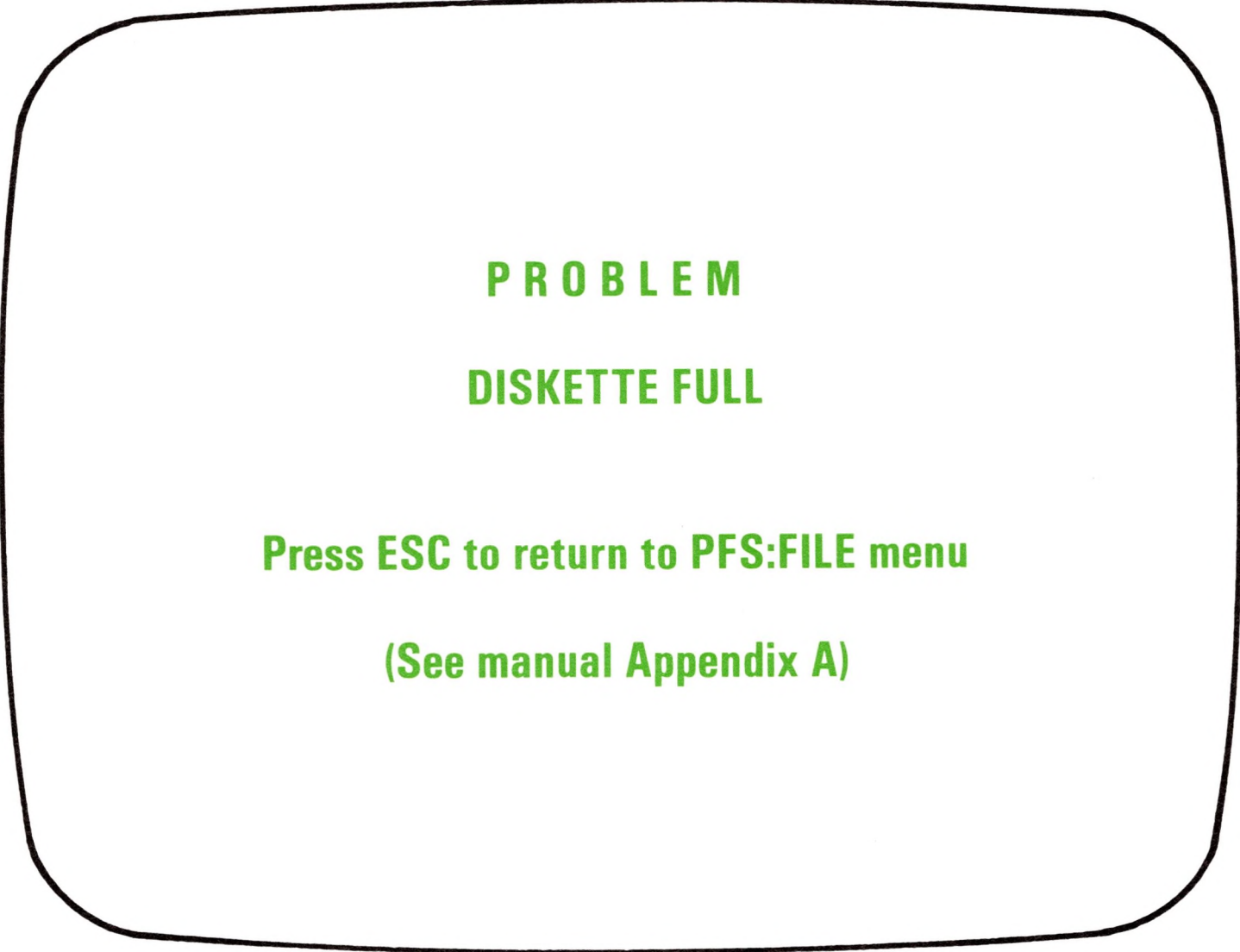
When you encounter one of these messages, simply locate the message in the list below and follow the instructions in the Corrective Action column. To restart normal FILE operation, press the [Esc] key. Following is the list of FILE messages, arranged in alphabetical order:

Message	Description	Corrective Action
AUX I/O ERROR	Your serial printer is not set up correctly.	Make sure all printer cables are securely connected, and that you have used the SETUP program to set the baud rate and other parameters. See Appendix D, "Setting Up a Serial Printer and the Work Drive."
BAD FILE NAME	You entered an illegal file name.	Make sure the file name begins with a letter and does not contain spaces (see the section titled "*pfs:* Data File Names" in the Introduction for details).

Message	Description	Corrective Action
CAN'T CREATE WORKFILE	FILE needs temporary work space to complete this operation. FILE looks on the diskette in the work drive for this space.	The work drive is drive B unless you have changed it. Make sure there is a blank, formatted diskette in the work drive.

See Appendix D, "Setting Up a Serial Printer and the Work Drive."

If you have a larger capacity drive, make sure it is turned on and that there is free space at least equal to the size of the file. |
| **CAN'T FIND FILE** | FILE searches for files in the default drive (usually drive A), unless you include the drive name as part of the file name. | If the file you want to use is in drive B, you must precede the name with B:. Also, make sure you entered the file name correctly, and that the data diskette is in the drive. |
| | The diskette in the drive is not formatted. | Format the diskette before using it. See Appendix C, "Formatting Diskettes." |

Message	Description	Corrective Action
DISKETTE FULL	FILE attempted to write to the file and found that there was no room on the diskette.	If you have some unnecessary forms in the file, make space by removing them (see Chapter 6). If the diskette has an unneeded file, you could remove it or use the COPY function to transfer it to another diskette. You could also use the COPY function to copy the blank form design from the current file to a second file, then continue adding information to the new file.
	FILE attempted to use temporary work space on the diskette in the work drive and found no room on the diskette.	Place a blank formatted diskette in the work drive. The work drive is drive B unless you change it. See "Setting Up a Serial Printer and the Work Drive" in Appendix D.
DISKETTE IS WRITE-PROTECTED	FILE cannot use diskettes that are write-protected. FILE uses certain areas of the data diskette to store temporary information, even when you select a retrieve function.	Remove the write-protect tab. To protect your information, you can use the COPY function to make a duplicate copy of your diskette file.
DRIVE ISN'T READY	The diskette drive door is open.	Close the door.

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Message	Description	Corrective Action
ERROR ENCOUNTERED WHILE TRYING TO BACK UP	The diskette you have attempted to use to make a backup copy of FILE is defective.	Use another diskette. Make sure to use high quality, double density diskettes. Insert your DOS diskette in drive A and turn the computer off, then on. When you see the DOS prompt (A>), return to step 1 of the backup instructions, "Making a Backup Copy of the FILE Program Diskette," and try again.
	You have already made a backup copy.	None.
		Turn the computer off. Then start FILE by following the instructions in the Introduction, "Starting FILE When the Computer is Off."
FILE CAN'T PRINT TO THE CONSOLE	You have entered CON: in the Print Option Menu as the output device.	Enter one of the following device names: LPT1: (parallel printer) AUX: or COM1: (serial printer) or the name of a diskette file (see "Filling in the Print Options" in Chapter 5).

Appendixes

A-5

Message	Description	Corrective Action
FILE IS MAXIMUM SIZE	You have attempted to add a form to a file that has reached the maximum size (4 million bytes), or that has too many forms (only 32000 forms are allowed).	If the file size is too big, COPY the design to a new file and add forms there from now on.
	You may have removed forms from a file that previously had 32000 forms, but FILE doesn't know there is space available.	If there is space available from removed forms, use Change Design to restructure the file (don't make any changes to the form). FILE will renumber the forms as it copies them, freeing form numbers for use.
INVALID SELECTION NUMBER, RE-ENTER	You entered a number for the SELECTION NUMBER that is invalid. The number must be between 1 and 7.	Re-enter a number between 1 and 7.
I/O ERROR	There is a physical problem with either the diskette drive, the drive controller, or the diskette. Some possible causes are:	
	The diskette in the drive is not formatted.	Format the diskette. See "Formatting Diskettes" in Appendix C.
	Diskette drive door open.	Close the door.
	Malfunction.	DO NOT USE THIS DISKETTE AGAIN. Make a copy of your backup diskette, then use that and re-enter any necessary information. If I/O ERROR persists, take the diskette drive to your IBM Personal Computer dealer for testing.

Message	Description	Corrective Action
	Diskette inserted incorrectly.	Remove the diskette, then re-insert it properly.
	Worn out diskette.	After 40-50 hours of use, the diskette may need replacing. Try using a different diskette.
MUST GIVE A FILE NAME	You have left the FILE NAME item of the Main Menu blank. Every FILE function, except EXIT, requires a file name in this item.	Enter the file name of the file you want to use.
NEW FILE MUST HAVE A DIFFERENT NAME	The NEW FILE NAME item of the Copy Function Menu contains the same name as the FILE NAME item of the Main Menu. You must give the file a different name.	Re-enter a different file name for the item.
PRINTER ISN'T READY	FILE cannot access the printer you named in the PRINT TO item.	Make sure your printer is turned on, on-line, and has plenty of paper. Check to see that the name you used is a valid name. Press [Esc] to return to the Main Menu.
ONLY 3 PAGES CAN BE CHANGED	You have tried to change the form design on more than three pages of the form at one time.	Complete the Change Design for the first three pages, then go through the process again for the additional pages.

Message	Description	Corrective Action
OUT OF PAPER	Your printer is off-line.	Press Esc , then restart the PRINT function.
SEARCH LIST TOO LONG	The retrieve specifications will not fit in FILE's internal storage area.	Specify fewer requests in the retrieve specifications.

Appendix B.   Diskette Storage Capacity

The standard diskette (160 KB) can hold up to 1100 simple forms. A 320 KB diskette can hold twice as much. The actual number is a function of how many pages there are in the form, how many items per page, and how much data is entered in each item. The following rules can be used to more accurately estimate how many forms will fit in a file.

1. A *pfs:* file is divided into blocks of 128-bytes (characters) per block. Some of these are used to store the blank form design, directory information and other internal FILE data structures. 1100 of these 128-byte blocks are used to store data. The form design is only stored once.

2. Each page of every form uses at least one 128-byte block.

3. FILE uses the first 14 bytes of every page. Each item takes 5 bytes (FILE internal parameters) plus the number of data characters. Leading and trailing blanks are not stored. Embedded strings of 3 or more blanks are compressed to a 3-byte code. A blank item takes 6 bytes (5 for FILE parameters plus 1 blank character).

    Example: NAME: JEFF STRIBLING 1970

    Length = 5 + 14 + 3 + 4 = 26 characters

4. As forms are updated and Attachment pages added, additional 128-byte blocks of diskette space are used. When a form is removed, the file space is automatically reclaimed.

To estimate how many forms will fit on a diskette:

1. For each page of your form, use Rule #3 to estimate the number of data characters per page, then divide that number by 128. (Round up to the next largest number.) This gives you the number of 128-byte blocks per page. Add the number of blocks for all pages of the form to give you the total number of blocks required.

2. Divide 1100 (2200 for a 320 KB diskette) by the total number of blocks required.

The resulting number is the approximate number of forms you can fit on a diskette. These figures are for a 160 KB diskette, with one *pfs:* file on the diskette. For diskettes with greater capacity, the *pfs:* file can be proportionately larger. For example, a 320 KB diskette drive has twice the capacity of a 160 KB diskette drive. Your *pfs:* file on a 320 KB diskette could hold up to 2200 pages.

If you put more than one *pfs:* file on a diskette, they will compete with each other for space until the diskette is full. When a file is initially built, it takes 128 blocks of 128 bytes each, for a total of 16384 bytes. When that space is used, it takes space 64 blocks at a time, as it needs more room.

To find out how much space (in bytes) is available on a diskette, follow the instructions under "Checking the Diskette Space" in Appendix C.

Appendix C. Useful DOS Commands

There are six DOS commands that you might want to use when working with the FILE program. These commands are:

FORMAT for preparing diskettes for use

DIR   for listing files on a diskette

RENAME for changing the name of a file

ERASE   for removing a file from a diskette

CHKDSK for finding out how much diskette space is available

COPY   for copying a file from one diskette to another

This appendix describes how to issue each of these commands.

Formatting Diskettes

You must format new diskettes before they can be used in the IBM Personal Computer. This makes magnetic tracks on the diskette that will store the data later. We recommend formatting a supply of diskettes at one time and marking them on the label so you know they have been formatted.

To format a diskette while using FILE, follow these steps:

1. Exit from FILE and insert the DOS diskette in drive A.

2. Next to the DOS prompt (A>) on the
   screen, type:

   FORMAT B:

   and press the Enter ⏎ key.

3. When DOS displays the message:

   **Insert new diskette for drive B
   and strike any key when ready**

   insert the diskette you want to format in drive B
   (or drive A if you have a one-drive system) and
   press a key. The screen will display a message
   while it is formatting (Formatting..) and then this
   message when formatting is complete:

   Formatting..Format complete

   Format another (Y/N)?

4. Remove the diskette from drive B. You can go on
   to format other diskettes, or type N to return to
   the DOS prompt (A>).

Listing Files

There are times when you want to see a list of the files
stored on a particular diskette. The DIR command
gives you such a list, including the file name (extension
too, if applicable), the size of the file (in bytes), and the
date the file was last updated.

To list your files while using FILE, follow these steps:

1. Insert the FILE diskette in drive A and exit from the FILE program. The DOS prompt (A>) will appear on the screen.

2. Replace the FILE diskette with the diskette whose files you want to list.

3. Type the command DIR, then press the Enter ⏎ key. The list might look like this:

```
FILE1          200          5-16-82         11:33a
FILE2          6250         8-06-82          2:10p
FILE3          3080         12-28-82         3:45p
```

The DOS prompt (A>) will appear below the last entry in the list. At this point, you may enter another command, reload FILE, or run another program.

Renaming Files

From time to time, you may want to change the name of one of your *pfs:* files. To rename a file, follow these steps:

1. Insert the FILE diskette in drive A, and Exit from the FILE program.

2. Replace that diskette with the diskette containing the file you want to rename in drive A.

3. Next to the DOS prompt (A>) enter the command RENAME, the current file name, a space, and the new file name. For example, type:

    RENAME A:Fred John

    and press the Enter ⏎ key to change the name of the file Fred, stored on the diskette in drive A, from Fred to John. The DOS prompt will re-appear when the renaming operation is complete. At this point, you can enter another command, reload FILE, or run another program.

You can also add an extension to a name, or change an existing extension, with the RENAME command. To do so, enter RENAME, the current file name, a space, the file name, then a dot and the new extension. For example, type:

RENAME B:Fred Fred.123

and press the Enter ⏎ key to add the extension .123 to the file named Fred that is stored on drive B.

Erasing Files

Even if you remove all the forms from a *pfs:* file, the file remains on the diskette. To erase a file while using FILE, follow these steps:

1. Insert the FILE diskette in drive A, and exit from the FILE program.

2. When the DOS prompt (A >) appears, replace the FILE diskette with the diskette containing the file you want to erase.

3. Type the command ERASE, and the file name. For example, type:

   ERASE FILE1

   and press the Enter ⏎ key to erase the file named FILE1 stored on the diskette in drive A.

The DOS prompt (A >) will re-appear, and you can enter another command, reload FILE, or run another program.

You can also erase all files on a diskette by entering the command ERASE, followed by the name of the drive containing the diskette, then an asterisk, a dot, and another asterisk. For example, type:

ERASE B:*.*

and press the Enter ⏎ key to erase all of the files from the diskette in drive B.

Checking the Diskette Space

Sometimes you will need to know how much space is available on a diskette. The CHKDSK command will give you that information. To find out how much space is available on a diskette, follow these steps:

1. Exit from the FILE program, and insert the DOS diskette in drive A.

2. Insert the diskette you want to check into drive B.

3. Enter the command CHKDSK, followed by the name of the drive containing the diskette, then press Enter ⏎ . For example, type:

   CHKDSK B:

   and press the Enter ⏎ key to display a list showing the total number of bytes on the diskette, the number of bytes used by your files, and the number of bytes still available. The list might look like this:

   160256 bytes total disk space
   49152 bytes in 3 user files
   111104 bytes available on disk

Appendixes

C-5

The DOS prompt (A>) will appear below the list. At this point, you can enter another command, reload FILE, or run another program.

If you have only one diskette drive, follow these instructions:

1. Exit from the FILE program, and insert the DOS diskette in the drive.

2. Enter the command CHKDSK B:, and press the Enter ⏎ key.

3. When DOS displays the message:

    Insert diskette for drive B
    and strike any key

    insert the diskette whose space you want to check, and press a key.
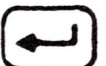
Copying a File

Often, you need to copy a *pfs:* file from one diskette to another. The COPY function will accomplish this task for you.

To copy a file while using FILE, follow these steps:

For a two-drive system:

1. Insert the FILE diskette in drive A and exit from the FILE program.

2. When the DOS prompt (A>) appears, remove the FILE diskette and insert the diskette that contains the file you want to copy.

3. Insert the target diskette (the diskette you want to copy to) in drive B.

4. Type the command COPY, followed by the name of the file you want to copy, then a space, then B: to indicate that you want the file copied onto the diskette in drive B. If you want the file to have a different name on the target diskette, enter that name after the B:. Press the Enter [↵] key to continue.

For example, to copy a file named SALES from the diskette in drive A to the diskette in drive B, type:

COPY SALES B:

and press the Enter [↵] key. The file named SALES will be copied onto the diskette in drive B; the new file will also be named SALES.

For a one-drive system:

1. Insert the FILE diskette in the drive, and exit from the FILE program.

2. When the DOS prompt (A >) reappears, remove the FILE diskette and replace it with the diskette that contains the file you want to copy.

3. Type the command COPY, followed by the name of the file, a space, and the B:. Press the Enter [↵] key to continue.

4. When the computer displays the message:

**Insert diskette for drive B
and strike any key when ready**

Insert the target diskette (the diskette you want to copy to) in the drive and press any key.

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5. When the computer displays the message:

   Insert the diskette for drive A
   and strike any key when ready

   insert the diskette that contains the file you want to copy and press any key.

6. When the DOS prompt (A>) reappears, the COPY function is complete.

For example, to copy a file named SALES from one diskette to another, type:

COPY SALES B:

and press the Enter ⏎ key. Switch diskettes as directed, and DOS will copy the SALES file onto the new diskette.

Appendix D. The *pfs:*FILE Setup Programs

Sometimes you will need to give FILE special instructions, depending on the exact configuration of your IBM Personal Computer. These special instructions fall into three categories:

1. You might need to send special characters to your printer before printing, especially if you want print enhancements such as 132-character compressed mode or bold type. See your printer manual for a description of the print modes available on your printer.

2. If you have a serial printer, you will need to give information about its settings before FILE can print correctly to that printer.

3. You can change the diskette drive where FILE assumes it will find your work diskette when restructuring files or sorting them for printing.

The FILE program diskette includes two utility programs, SETUP and PRINTER, that you can use as needed to give FILE these special instructions. This appendix describes these two programs.

Sending Special Characters

If your printer requires that you send a special character sequence, you will need to run the program named PRINTER each time you turn your printer on. Most printers retain the setup characters until you turn the printer off, so you do not need to run the program each time you load FILE.

The following characters select the most valuable special printing modes of the IBM 80 CPS Matrix Printer:

Ctrl O   compressed mode (132 characters/line)

Esc E   emphasized mode (bold print)

Esc G   double strike (good for carbon copies)

The samples shown below were printed on the IBM 80 CPS Matrix Printer using these modes, either alone or in combination.

```
STANDARD DOT MATRIX PRINT
COMPRESSED
COMPRESSED, DOUBLE STRIKE
EMPHASIZED
EMPHASIZED, DOUBLE STRIKE
```

Note that it is not possible to use compressed mode and emphasized mode at the same time.

To use the PRINTER program, follow these steps:

1. If your computer is turned off, load DOS before beginning. Otherwise, exit from whatever program you are running.

2. When the DOS prompt (A>) appears, put the FILE program diskette in drive A.

3. Type:

    PRINTER

    and press the Enter ⏎ key to display the following screen:

PRINTER SETUP

This program allows you to send special characters to a printer.

Turn your printer off and on, and enter its name below.

PRINTER NAME: LPT1:

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F10-Continue

---

4. Turn your printer on, then enter the name of your
    printer. LPT1: is the name of the IBM 80 CPS
    Matrix Printer or another parallel printer; COM1:
    and AUX: are the possible names for a serial
    printer. Now press $\boxed{\text{F1Ø}}$, and another screen
    appears:

> **Enter printer setup characters. Press F10 when done.**
> **The characters will be sent to the printer.**
> **If you make a mistake, press F6 to escape from the program,**
> **and then run the program again.**
>
> :

5. Enter the special characters you want to send to
    the printer. When you have finished, press the
    $\boxed{\text{F1Ø}}$ key. When the DOS prompt reappears,
    you can load FILE or another program that you
    want to run. If you make a mistake entering the
    special characters, press $\boxed{\text{F6}}$ and run the
    PRINTER program again.

When you want to change the print mode, run
PRINTER again and send the characters that set the
desired mode(s) on.

Example

This example shows you how to print your information in double strike and in 132-character compressed mode on the IBM 80 CPS Matrix Printer. To do this, you must send special characters to the printer before you use the PRINT function. Use the PRINTER program to send the characters.

First, exit from FILE or whatever program you have been running. When the DOS prompt (A>) appears, put the FILE program diskette in drive A, type:

PRINTER

and press the Enter ⏎ key. When the instruction screen appears, turn your printer off and on as requested, leave LPT1: in the PRINTER NAME item (that selects the IBM 80 CPS Matrix Printer), and press F1Ø .

Next, the screen appears that asks you to enter the special characters:

```
Enter printer setup characters. Press F10 when done.
        The characters will be sent to the printer.
If you make a mistake, press F6 to escape from the program,
            and then run the program again.


:
```

Notice that the cursor is positioned next to the colon at the left-hand side of the screen. Now, to select compressed print mode, press [Ctrl] [O] (press [Ctrl] and, while holding it down, press the letter O). Next, press [Esc] and then type:

G

to select double strike print mode. The screen should look like this:

```
   Enter printer setup characters. Press F10 when done.
        The characters will be sent to the printer.
 If you make a mistake, press F6 to escape from the program,
            and then run the program again.


 : Ctrl-O

 : Escape

 : G

 :
```

Now press ⌜F10⌝ to send those characters to the printer and return to DOS. When you see the A > prompt, type:

FILE

and press the Enter ⌜⏎⌟ key to run the FILE program. Now you are ready to print your information. The next time you print a form, it will appear in both double strike and compressed modes. For example, one of the forms from the STAFF file would look like this:

Employee #: 01623   Hired: 76/06/14

Name: Anne Williams
Address: 67 Westlake Drive
City: Los Altos   State: CA   Zip: 94022

Job Title: Manager

Experience: Division Management

Setting up a Serial Printer and the Work Drive

If you have a serial printer or if you want to change the work drive used when restructuring files or sorting them for printing, you will need to run the program named SETUP the first time you run FILE. The program stores the information you give it in a special file on the FILE program diskette. If you change to a different serial printer, or change the drives on your IBM Personal Computer, you will need to run the program again to give FILE the new information.

To run the SETUP program, follow these steps:

1. If your computer is turned off, load DOS before beginning. Otherwise, exit from whatever program you have been using. You should see the A> prompt on the screen.

2. Remove the write-protect tab from the FILE diskette and place the diskette in drive A.

3. Type the command:

    SETUP

    press the Enter ⏎ key and a screen explaining the program will appear.

4. Follow its instructions, then press F1Ø to continue. A menu will come up next that looks like this:

```
WORK DRIVE: B:



SERIAL PRINTER NAME: COM1:

BAUD RATE: 1200

PARITY (NONE, ODD, EVEN): NONE

BYTE LENGTH (7 or 8): 8

NUMBER OF STOP BITS (1 or 2): 1


                                    F10-Continue
```

When you restructure a file or sort your forms before printing, FILE assumes that it will find a work diskette in drive B that has enough free space. To be sure you have enough room, you should always keep a blank, formatted diskette in drive B. If for some reason you want to change the work drive so that FILE will look in another drive for work space, you use this menu to make that change. Note that you need space on the work diskette at least equal to the size of the *pfs:* file (see "Checking the Diskette Space" in Appendix C).

5. Enter the name of the drive you want to use as a work drive in the WORK DRIVE item. For example, to set the work drive to drive A, type A:. If you are not using a serial printer, skip step 6 and go to step 7.

6. To set up the serial printer, enter the following information:

SERIAL PRINTER NAME: enter COM1: or AUX: to identify the printer you have

BAUD RATE: enter the baud rate setting for your printer

Check your printer manual for the correct values for the other items on the menu. If you do not find the information, try the default settings (the values that appear on the screen) and see if the printer works properly. If not, press ⌊Esc⌋ to return to the FILE Main Menu, then run the SETUP program again to experiment with other settings until you find the correct ones. If this is not successful, call your IBM Personal Computer dealer for help.

7. When you are finished, press ⌊F1ø⌋ and FILE will store the information on the program diskette, then return to DOS.

Appendix E. *pfs*:FILE and the IBM Fixed Disk

Using *pfs*:FILE with the IBM Fixed Disk

You can use *pfs*:FILE with the IBM fixed disk in two different ways. First, you can store your data files on the fixed disk, thus allowing larger files to be stored, and faster access to forms in the stored files. Second, you can copy the *pfs*:FILE program to the fixed disk and then load it from there. This allows you to load the program faster, without using the program diskette.

Storing a *pfs*:FILE on the Fixed Disk

You can store a *pfs*:FILE on the fixed disk provided you include the drive identifier for the fixed disk as part of the file name. If you specify the fixed disk drive as the default drive, then it is not necessary to include the drive identifier as part of the file name. Note that your data file must be in the same directory as your *pfs*:FILE program.

Copying *pfs*:FILE to the Fixed Disk

Follow these steps to copy the *pfs*:FILE program to the fixed disk:

1.   Insert the DOS diskette into drive A and turn on your IBM Personal Computer. Enter the date and time when the computer asks you to do so.

2.   When the DOS prompt appears, remove the DOS diskette and replace it with the *pfs*:FILE program diskette.

3.   Follow the instructions in Appendix D of the *pfs*:FILE manual called "Setting Up a Serial Printer and the Work Drive" to run the setup program. Change the work drive name to the drive name of your fixed disk. For example, if your fixed drive is drive C, then the work drive item on the setup menu should be drive C.

4.   If you have a serial printer, enter the correct values for the other items on the setup menu.

5.   Press the F10 key to complete the setup program. Then enter FTRANS in response to the DOS prompt.

The "in use" lights will come on alternately as the program is copied from the diskette to the fixed disk. The copy is placed on the current directory. The DOS prompt reappears when the copy is complete.

If you have more than one fixed disk, the copy will be made to the drive whose name is last in the alphabet. For example, if two drives are named C and D, the copy will automatically be made to drive D.

Error Conditions

The following error conditions might occur during the copy procedure.

Message	Explanation	Corrective Action
CAN'T COPY PROGRAM FILE	Your program diskette has been damaged.	Try the copy procedure with the backup copy of the program diskette.
	Your fixed disk is improperly formatted (also applies to the CREATE message).	Copy to diskette any files on the fixed disk. Then reformat the fixed disk, and try the copy procedure again.
CAN'T CREATE PROGRAM FILE	Your current directory is full.	If you have unnecessary files in the current level directory, delete them and start the copy procedure again.
NAME ERROR	Possible DOS error.	Reload DOS and start the copy procedure again.
WRONG VERSION	Cannot find the fixed disk.	Make sure the your fixed disk is properly connected, and that you are using the new DOS.

Running the *pfs*:FILE Program from a Fixed Disk

To run the *pfs*:FILE program from a fixed disk, make sure that you have followed the instructions under "Copying *pfs*:FILE to the Fixed Disk." Then in response to the DOS prompt, type and enter the drive identifier for the fixed disk followed by the name of the program. For example, to run the File program from drive C, enter C:FILE. If the default drive is C, you need only enter FILE in response to the DOS prompt.

Changing Settings When Using the Fixed Disk

To change the work drive or the information stored for your serial printer after copying the *pfs*:FILE program to the fixed disk, you need to insert the *pfs*:FILE program diskette into drive A and run the setup program from that diskette. Use the COPY command to copy the file named IBMSETUP.PFS from the diskette drive in A to the fixed disk.

Glossary

backup copy: a diskette or file containing information that is a duplicate of the information on another diskette or file. Work with the copy and store the original in a safe place in case something happens to the information on the working copy.

characters: symbols you may use to express information, including digits (0-9), letters, punctuation marks, and other special symbols.

cursor: the blinking underline displayed on the screen. It indicates where the next character typed will appear.

default drive: FILE searches the diskette located in the default drive to find any file names that you enter unless you specify another drive. The default drive is drive A unless you change it. See your DOS manual, "Specifying the Default Drive."

default response: the response appearing next to a menu item before you make an entry. The default responses are entered by the program. You can enter a different response by typing over the default response.

diskette: a removable magnetic recording medium used to store information. Diskettes can contain programs (such as the FILE program diskette) or data (such as your *pfs:*files). Handle your diskettes carefully.

diskette drive: The electronic device for large volume storage and retrieval of information. It is the machine in which you insert a diskette.

file: a collection of forms that are of the same type. It contains the blank form you designed along with all the forms that you have filled in. FILE also stores new headings and report specifications in the *pfs:* file.

form: any combination of items in any order. You design a form, then use it to store and retrieve your information. *pfs:***FILE** stores the forms in a file.

format: the process of marking and arranging the storage space on a diskette. Formatting also erases any data stored on the diskette.

item: the basic element of a form. An item consists of a name which is highlighted on the screen, followed by a colon and an area where you enter the information.

load: the process of transferring a program from a diskette into the computer's memory.

menu: the list of functions that you can choose at a given time. The Main Menu appears when you first load the program. You can always return to the Main Menu by pressing the ⎡Esc⎤ key.

numeric: description of information consisting of characters that have an arithmetic value, including numbers and decimal points.

parallel printer: an IBM 80 CPS Matrix Printer or other printer connected to the IBM Monochrome Display and Parallel Printer Adapter (or the IBM Parallel Printer Adapter).

prompt: a computer message which appears on the video screen to indicate that you should enter a response.

print specifications: a filled in form that describes which items to print and how you want to arrange them.

retrieve specifications: a filled in form that describes which forms for FILE to look for in a data file.

serial printer: a printer connected to the IBM Asynchronous Communications Adapter.

work drive: FILE needs temporary work space on a diskette when restructuring files or sorting files for printing. FILE looks for this space on the diskette in the work drive. The work drive is drive B unless you change it.

write-protect tab: a small strip of tape that covers the notch on the side of a diskette. No information can be written on the diskette as long as the write-protect tab covers the notch. Keep a write-protect tab over the notch on your FILE program diskette.

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Sample *pfs:*FILE Screen

```
⑥ Employee #:          Hired:
   Name:
   Address:
   City:           State:      Zip:
   Job Title:
   Salary:                              ⑤
   ------------------------------------------
   ① File: STAFF     ② RETRIEVE SPEC      ③ Page 1
   ④ F5-Date   F6-Time                     F10-Continue
```

①   The name of the file you are using

②   What information *pfs:*FILE expects you to enter.

③   Which page of the form is on the screen.

④   Which function keys are available and what they do.

⑤   Form.

⑥   Item name.

Retrieve Specifications

Numeric item match (n stands for any number)

>n	greater than n
<n	less than n
=n	equal to n
=n1..n2	between n1 and n2 (including n1 and n2)

Character match (XXX stands for any string of characters)

XXX	exact character match
..XXX	end character match
XXX..	beginning character match
..XXX..	partial character match
@	wild card character match
..	wild card match — matches any data entered for the item

"Not" Match

/	(preceding any retrieve specification) finds a match if the item does NOT meet the retrieve specification
/..	wild card "not" match — matches any form with no information entered for the item

Print Specifications

S	Sorts printout by this item.
+	Prints item and advances two spaces.
X	Prints item and advances to the next line.

Special Keys

Key	Description
F10	Proceeds with the specified function.
PgDn	Page Down. Displays the next page of the form you are using.
PgUp	Page Up. Displays the previous page of the form you are using.
Ctrl Home	Erases all entries from the page currently displayed on the screen.
F2	Prints all pages of the currently displayed screen.
F3	Removes all pages of the currently displayed screen.
F5	Enters the current date at the cursor position in the form.
F6	Enters the current time at the cursor position in the form.
Esc	Escape. Returns to the Main Menu.
Ins	Insert. Inserts characters in a line. (This becomes zero when you press the NumLock Key.)
Del	Delete. Deletes characters in a line. (This becomes a decimal point when you press the NumLock key.)

Cursor Control Keys

Key	Description
4 ←	Cursor left. Moves the cursor to the left one space.
6 →	Cursor right. Moves the cursor to the right one space.
8 ↑	Cursor up. Moves the cursor up one line.
2 ↓	Cursor down. Moves the cursor down one line.
⇥	Tab. Moves the cursor forward to the next item on the form or menu. With Shift ⇧, moves the cursor backward to the previous item.
←	Backspace. Moves the cursor to the left one space and erases the character in that location.

Quick Reference to Manual

Daily Startup

**Starting FILE When the Computer is Off**

1. With your IBM Personal Computer turned off, insert the **FILE** program diskette in drive A.

2. Turn on your IBM Personal Computer. You will hear the drive loading DOS. When it is finished, DOS will prompt you for the new date and time.

3. Enter the date as three groups of numbers, separated by hyphens or slashes. Enter the time as two groups of numbers, separated by colons. Use 24-hour time.

4. At this point, the diskette drive will spin, then the Main Menu will appear on the screen. Remove the **FILE** program diskette from the drive and put it back in its envelope.

Daily Startup

Starting FILE When the Computer is On

1. If you have been running a program, exit from the program and return to DOS. The DOS prompt (A>) should be the last item on the screen.

2. Remove any diskettes from the drives and put the **FILE** program diskette in drive A.

3. Type in the word **FILE** and press the Enter ⏎ key. The **FILE** program will load into the computer and the Main Menu will appear. You are now ready to begin using FILE. Remove the program diskette from the drive and put it back in its envelope.

The Keyboard
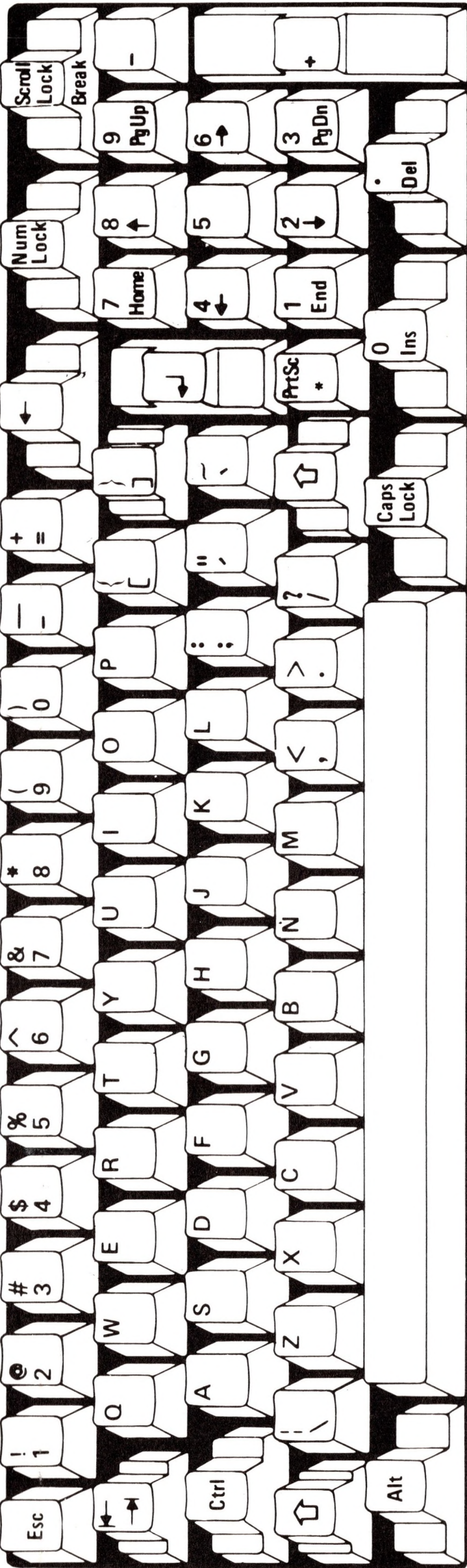
Numeric keyboard

Typewriter keyboard

Function keys